Access DB# _____

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: _____ Examiner # : _____ Date: _____
Art Unit: _____ Phone Number 30_____ Serial Number: _____
Mail Box and Bldg/Room Location: _____ Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

****

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract

Title of Invention: _____

Inventors (please provide full names): _____

_____

Earliest Priority Filing Date: _____

***For Sequence Searches Only** Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

****

STAFF USE ONLY	Type of Search	Vendors and cost where applicable
Searcher: _____	NA Sequence (#)_____	STN _____
Searcher Phone #: _____	AA Sequence (#)_____	Dialog _____
Searcher Location: _____	Structure (#) _____	Questel/Orbit _____
Date Searcher Picked Up: _____	Bibliographic _____	Dr.Link _____
Date Completed: _____	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: _____	Fulltext _____	Sequence Systems _____
Clerical Prep Time: _____	Patent Family _____	WWW/Internet _____
Online Time: _____	Other _____	Other (specify)_____

PTO-1590 (8-01)

National Library of Medicine

About Entrez

Text Version

Entrez PubMed
Overview
Help | FAQ
Tutorial
New/Noteworthy
E-Utilities

PubMed Services
Journals Database
MeSH Database
Single Citation Matcher
Batch Citation Matcher
Clinical Queries
LinkOut
Cubby

Related Resources
Order Documents
NLM Gateway
TOXNET
Consumer Health
Clinical Alerts
ClinicalTrials.gov
PubMed Central

Privacy Policy

- Search History will be lost after one hour of inactivity.
- To combine searches use # before search number, e.g., #2 AND #6.
- Search numbers may not be continuous; all searches are represented.

Search	Most Recent Queries	Time	Result
#16	Search **mercaptopropanoic and citric**	10:21:42	0
#15	Search **mercaptopropanoic and desmopressin and citric**	10:21:37	0
#14	Search **mercaptopropanoic and desmopressin and buffer**	10:19:07	1
#13	Search **mercaptopropanoic and desmopressin and water**	10:19:00	0
#9	Search **mercaptopropanoic and desmopressin**	10:14:04	2
#8	Search **mercaptopropanoic and water**	10:13:45	1
#7	Search **mercaptopropanoic**	10:13:28	27
#6	Search **mercapto and propanyl**	10:13:14	0
#5	Search **mercaptopropanyl**	10:13:05	0
#4	**Related Articles** for **PubMed** (Select **926117**)	10:02:55	
#2	Search **Lowbridge and 1977**	10:01:29	5
#1	Search **Lowbridge and mercapto**	10:00:39	3

Clear History

```
=> fil reg
FILE 'REGISTRY' ENTERED AT 11:50:19 ON 16 MAY 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2003 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:   15 MAY 2003  HIGHEST RN 516445-69-5
DICTIONARY FILE UPDATES:  15 MAY 2003  HIGHEST RN 516445-69-5

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

Crossover limits have been increased.  See HELP CROSSOVER for details.

Experimental and calculated property data are now available.  See HELP
PROPERTIES for more information.  See STNote 27, Searching Properties
in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=>
=>

=> d his

     (FILE 'HOME' ENTERED AT 11:43:04 ON 16 MAY 2003)

     FILE 'REGISTRY' ENTERED AT 11:43:41 ON 16 MAY 2003
                E IGF-1
L1            64 S E4-E6
L2          1073 S INSULIN(L)GROWTH(L)FACTOR(L)(1 OR ONE OR I)
L3          1128 S L1 OR L2

     FILE 'HCAPLUS' ENTERED AT 11:44:37 ON 16 MAY 2003
L4         20729 S L3 OR ((INSULIN(W)LIKE OR INSULIN)(W)GROWTH(W)FACTOR? OR IGF
L5          1485 S L4(L)CYCL?
L6            31 S L4(2N)CYCLIC?
                 SELECT HIT RN L6 1-31

     FILE 'REGISTRY' ENTERED AT 11:47:47 ON 16 MAY 2003
L7             2 S E1-E3

     FILE 'REGISTRY' ENTERED AT 11:50:19 ON 16 MAY 2003

=> d sqide l7 1-2

L7   ANSWER 1 OF 2  REGISTRY  COPYRIGHT 2003 ACS
RN   122635-51-2  REGISTRY
CN   Insulin-like growth factor I (human reduced), cyclic
     (6.fwdarw.47),(18.fwdarw.61),(48.fwdarw.52)-tris(disulfide) (9CI)  (CA
     INDEX NAME)
OTHER NAMES:
CN   Cyclic (6.fwdarw.47),(18.fwdarw.61),(48.fwdarw.52)-tris(disulfide) human
     IGF-I
CN   Human insulin-like growth factor-I, isomer I
CN   Insulin-like growth factor I (human improperly folded isoform)
CN   Insulin-like growth factor I (human isoform)
FS   PROTEIN SEQUENCE
SQL  70
```

NTE

type	------ location ------		description
bridge	Cys-6	- Cys-47	disulfide bridge
bridge	Cys-18	- Cys-61	disulfide bridge
bridge	Cys-48	- Cys-52	disulfide bridge

SEQ 1 GPETLCGAEL VDALQFVCGD RGFYFNKPTG YGSSSRRAPQ TGIVDECCFR
51 SCDLRRLEMY CAPLKPAKSA

RELATED SEQUENCES AVAILABLE WITH SEQLINK
DR 157320-42-8
MF C331 H512 N94 O101 S7
CI MAN
SR CA
LC STN Files: CA, CAPLUS
11 REFERENCES IN FILE CA (1957 TO DATE)
11 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L7 ANSWER 2 OF 2 REGISTRY COPYRIGHT 2003 ACS
RN **67763-96-6** REGISTRY
CN Insulin-like growth factor I (9CI) (CA INDEX NAME)
OTHER NAMES:
CN IGF-1
CN IGF-I
CN Insulin-like growth factor 1
CN insulin-like growth factor I
CN Somatomedin 1
CN Somatomedin C
CN Sulfation factor C
DR **61461-67-4**
MF Unspecified
CI PMS, COM, MAN
PCT Manual registration
LC STN Files: ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAPLUS, CBNB, CEN, CHEMCATS, CIN, CSCHEM, DDFU, DRUGU, EMBASE, MEDLINE, MRCK*, PHAR, PROMT, RTECS*, TOXCENTER, USPAT2, USPATFULL, VETU
(*File contains numerically searchable property data)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
15377 REFERENCES IN FILE CA (1957 TO DATE)
271 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
15398 REFERENCES IN FILE CAPLUS (1957 TO DATE)

=>
=>

=> fil hcaplus
FILE 'HCAPLUS' ENTERED AT 11:50:45 ON 16 MAY 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 16 May 2003 VOL 138 ISS 21
FILE LAST UPDATED: 15 May 2003 (20030515/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=>
=>

=> d ibib abs hitrn 16 1-31

L6 ANSWER 1 OF 31 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:101108 HCAPLUS
DOCUMENT NUMBER: 134:141764
TITLE: Cyclic amine derivatives for the treatment of neurological diseases
INVENTOR(S): Mullican, Michael; Lauffer, David
PATENT ASSIGNEE(S): Vertex Pharmaceuticals Incorporated, USA
SOURCE: PCT Int. Appl., 48 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001009097	A1	20010208	WO 2000-US18578	20000706
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1202970	A1	20020508	EP 2000-947092	20000706
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
JP 2003506356	T2	20030218	JP 2001-514301	20000706
US 2002123493	A1	20020905	US 2002-40033	20020103

PRIORITY APPLN. INFO.: US 1999-146588P P 19990730
WO 2000-US18578 W 20000706

OTHER SOURCE(S): MARPAT 134:141764

AB The present invention relates to cyclic amine derivs. of general formula (I) for treating or preventing neuronal damage assocd. with neurol. diseases. The invention also provides compns. comprising the compds. of the present invention and methods of utilizing those compns. for treating or preventing neuronal damage. The invention also includes use of the compds. in combination with neurotrophic factors.

IT **67763-96-6, IGF-1**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**cyclic** amine derivs. for treatment of neurol. diseases and their use in combination with neurotrophic factors)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 31 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:100980 HCAPLUS
DOCUMENT NUMBER: 134:141761
TITLE: Acyclic and cyclic amine derivatives for the treatment of neurological diseases
INVENTOR(S): Mullican, Michael; Lauffer, David; Tung, Roger
PATENT ASSIGNEE(S): Vertex Pharmaceuticals Incorporated, USA
SOURCE: PCT Int. Appl., 83 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001008685	A1	20010208	WO 2000-US20491	20000727
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1207882	A1	20020529	EP 2000-952238	20000727
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
JP 2003505508	T2	20030212	JP 2001-513415	20000727

PRIORITY APPLN. INFO.: US 1999-146582P P 19990730
WO 2000-US20491 W 20000727

OTHER SOURCE(S): MARPAT 134:141761
AB The present invention relates to acyclic and cyclic amine derivs. for treating or preventing neuronal damage assocd. with neurol. diseases. The invention also provides compns. comprising the compds. of the present invention and methods of utilizing those compns. for treating or preventing neuronal damage. The invention includes the use of neurotrophic factors in combination with the acyclic and cyclic amines.
REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 31 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:840932 HCAPLUS
DOCUMENT NUMBER: 134:37514
TITLE: **Insulin-like growth factor I (IGF-I)** and **cyclic** adenosine 3',5'-monophosphate regulate IGF-binding protein-3 gene expression by transcriptional and posttranscriptional mechanisms in mammary epithelial cells
AUTHOR(S): Cohick, Wendie S.; Wang, Bojing; Verma, Poonam; Boisclair, Yves R.
CORPORATE SOURCE: Department of Animal Sciences, Rutgers, State University of New Jersey, New Brunswick, NJ, 08901, USA
SOURCE: Endocrinology (2000), 141(12), 4583-4591
CODEN: ENDOAO; ISSN: 0013-7227
PUBLISHER: Endocrine Society
DOCUMENT TYPE: Journal

LANGUAGE: English

AB Insulin-like growth factor I (IGF-I) is a potent mitogen for both normal and transformed mammary epithelial cells (MEC), and IGF-binding protein-3 (IGFBP-3) potentiates IGF-I action in these cells. The synthesis of IGFBP-3 is stimulated by both IGF-I and agents that increase intracellular cAMP (e.g. forskolin) in the bovine MEC line MAC-T. In addn., the combination of IGF-I and cAMP increases IGFBP-3 mRNA to a greater extent than does either treatment alone. The mol. mechanisms responsible for this regulation are not known and therefore represent the focus of this study. The half-life of IGFBP-3 mRNA in untreated MAC-T cells was detd. to be 11 h. Exposure to IGF-I or forskolin increased the half-life to 27 and 101 h, resp. Nuclear run-on assays indicated that IGFBP-3 transcription rates were increased 3.5-fold in cells treated with a combination of IGF-I and forskolin. To further study this regulation, 1.1 kb of the 5'-flanking region of the IGFBP-3 promoter were fused to a promoter-less reporter plasmid encoding luciferase. Transient transfection assays indicated that both IGF-I and forskolin alone produced small, but significant, increases in IGFBP-3 promoter activity of 1.57- and 1.59-fold, resp. However, the combination of IGF-I and forskolin increased IGFBP-3 promoter activity 2.25-fold above control values, suggesting that these factors activate discrete signaling pathways that act in concert to stimulate IGFBP-3 gene transcription. Deletion anal. indicated that promoter fragments contg. as little as 267 bp upstream of the TATA box retained responsiveness of IGF-I and forskolin. This region contains a 200-bp sequence that is approx. 80% homologous between the murine and bovine promoters. It contains several conserved AP-2 and Sp1 consensus binding sequences that may be important for the effects of IGF-I and forskolin on IGFBP-3 promoter activity. In summary, these data indicate that IGF-I and cAMP, working through sep. signaling pathways, activate both transcriptional and post-transcriptional mechanisms to stimulate IGFBP-3 synthesis in MEC.

REFERENCE COUNT: 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 4 OF 31 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2000:757391 HCAPLUS

DOCUMENT NUMBER: 133:345122

TITLE: Regulation of insulin-like growth factor-binding protein 1 by hypoxia and 3',5'-cyclic adenosine monophosphate is additive in HepG2 cells

AUTHOR(S): Sugawara, Junichi; Tazuke, Salli I.; Lii, F-Suen; Powell, David R.; Kaper, Fiona; Giaccia, Amato J.; Giudice, Linda C.

CORPORATE SOURCE: Departments of Gynecology and Obstetrics, Stanford University Medical School, Stanford, CA, 94305-5317, USA

SOURCE: Journal of Clinical Endocrinology and Metabolism (2000), 85(10), 3821-3827
CODEN: JCEMAZ; ISSN: 0021-972X

PUBLISHER: Endocrine Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Insulin-like growth factor-binding protein 1 (IGFBP-1) is important in regulating minute-to-minute IGF bioavailability in the circulation and is primarily an inhibitor of IGF action systemically and in most cellular systems. Understanding regulation of IGFBP-1 is, thus, important in understanding regulation of IGF actions. The IGFBP-1 promoter contains a cAMP response element, and cAMP stimulates IGFBP-1 gene expression at the transcriptional level. Recently, the authors have found three consensus sequences for the hypoxia response element in intron 1 of the IGFBP-1 gene. Herein, the authors have investigated the effects of hypoxia and a cAMP analog, 8-bromoadenosine-3',5'-cyclic monophosphate (8-Br-cAMP), on IGFBP-1 expression in HepG2 cells, a model system for IGFBP-1 gene

regulation. HepG2 cells were exposed to normoxia (20% pO2) or hypoxia (2% pO2) for 24 h in the absence or presence of 8-Br-cAMP (0.1, 0.5, and 1 mM). Western ligand blotting revealed IGFBP-1 as the predominant IGFBP in HepG2-conditioned media, which increased in a dose-dependent manner after incubation with 8-Br-cAMP in normoxia and hypoxia (3-fold and 7-fold at 1 mM, resp.). Under hypoxic, compared with normoxic, conditions, IGFBP-1 protein and mRNA levels increased .apprx. 10-fold and 20-fold, resp. In normoxia, 8-Br-cAMP stimulated IGFBP-1 protein and mRNA levels in a dose-dependent manner (7-fold and 10-fold at 1 mM). Hypoxia and 8-Br-cAMP showed additive stimulatory effects on IGFBP-1 protein and mRNA levels (35-fold and 50-fold at 1 mM) that were time and dose dependent. Primary transcripts of IGFBP-1 mRNA were increased concordantly with IGFBP-1 mRNA. The half-life of the IGFBP-1 mRNA was markedly increased (.apprx.6-fold) by hypoxia, and cAMP minimally enhanced this effect. These results demonstrate that hypoxia and compds. that increase intracellular cAMP additively regulate IGFBP-1 gene expression by transcriptional and posttranscriptional mechanisms. Regulation of IGFBP-1 mRNA and protein by cAMP and hypoxia may be important for understanding the physiol. and pathophysiol. roles of IGFBP-1.

REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 5 OF 31 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:646433 HCAPLUS
DOCUMENT NUMBER: 133:276581
TITLE: Presumptive mediators of growth hormone action on insulin-like growth factor I release by porcine ovarian granulosa cells
AUTHOR(S): Makarevich, A. V.; Sirotkin, A. V.
CORPORATE SOURCE: Research Institute of Animal Production, Nitra, SK-94 992, Slovakia
SOURCE: Biological Signals and Receptors (2000), 9(5), 248-254 CODEN: BSREF3; ISSN: 1422-4933
PUBLISHER: S. Karger AG
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The role of cAMP/protein kinase A (PKA)- and tyrosine kinase (TK)-dependent intracellular mechanisms in mediating the action of porcine growth hormone (GH) on insulin-like growth factor I (IGF-I) secretion by porcine ovarian granulosa cells was studied. It was obsd. that GH-induced stimulation of IGF-I secretion was accompanied by an increase in cAMP prodn. The stimulation of PKA by the addn. of either a cAMP agonist or a phosphodiesterase inhibitor to the medium increased IGF-I release by the cells, indicating a direct stimulation of **IGF-I** release by **cyclic** nucleotides. Moreover, the stimulatory effect of GH on IGF-I was completely suppressed by the addn. of the PKA blocker Rp-cAMPS. Neither TK blocker altered the basal IGF-I level, but both strongly suppressed the GH-induced increase in IGF-I accumulation. Taken together, these findings suggest that cAMP/PKA- and/or TK-dependent pathways may be involved in the mediation of GH action on IGF-I release by porcine granulosa cells.

REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 6 OF 31 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:584368 HCAPLUS
DOCUMENT NUMBER: 133:218129
TITLE: The role of IGF-I, cAMP/protein kinase A and MAP-kinase in the control of steroid secretion, cyclic nucleotide production, granulosa cell proliferation and preimplantation embryo development in rabbits
AUTHOR(S): Makarevich, A.; Sirotkin, A.; Chrenek, P.; Bulla, J.; Hetenyi, L.

CORPORATE SOURCE: Research Institute of Animal Production, Nitra, 94992, Slovakia
SOURCE: Journal of Steroid Biochemistry and Molecular Biology (2000), 73(3-4), 123-133
CODEN: JSBBEZ; ISSN: 0960-0760
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The aim of this study was to investigate the actions of insulin-like growth factor I (IGF-I) on the secretory and proliferative functions of rabbit ovarian cells and on early embryogenesis. It was found that addn. of IGF-I at a lower concn. (1 ng/mL) stimulated progesterone secretion by cultured rabbit granulosa cells, while higher concns. of IGF-I (10, 100 ng/mL) were inhibitory. IGF-I had no effect on estradiol secretion. CAMP secretion was slightly increased after addn. of IGF-I at 10 ng/mL, but not by higher concns. Cyclic GMP secretion was stimulated by IGF-I at 100 ng/mL only. A blocker of protein kinase A, Rp-cAMPs, did not alter progesterone and estradiol secretion but did prevent the action of IGF-I on progesterone secretion. An immunocytochem. study demonstrated that IGF-I significantly increased the proportion of proliferating cell nuclear antigen-pos. (PCNA-pos.) cells. Rp-cAMP did not change cell proliferation but partially prevented the proliferation-stimulating effect of IGF-I. IGF-I (100 ng/mL) significantly increased the proportion of divided zygotes and the no. of embryos reaching the morula/blastocyst stage. Blockers of PKA, Rp-cAMPS and KT5720, reversed the effects of IGF-I on zygote cleavage and embryo development. Addn. of IGF-I (100 ng/mL) significantly increased MAPK within the cells (proportion showing immunoreactivity to ERK-1 and ERK-3 antibodies and intensity of a 42-kDa band related to ERK-2). Rp-cAMPS suppressed the basal ERK-2 immunoreactivity but not that of ERK-1 or ERK-3. It completely inhibited the IGF-I-induced activation of ERK-3 but not that of ERK-1 or ERK-2. This in vitro study demonstrates that IGF-I is a potent stimulator of ovarian secretion, proliferation and embryogenesis in rabbit. Its effects are mediated by cAMP/PKA- and, probably by, MAPK-dependent intracellular mechanisms.

REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 7 OF 31 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:291572 HCAPLUS
DOCUMENT NUMBER: 133:57537
TITLE: Cyclic nucleotide phosphodiesterase 3B is a downstream target of protein kinase B and may be involved in regulation of effects of protein kinase B on thymidine incorporation in FDCP2 cells
AUTHOR(S): Ahmad, Faiyaz; Cong, Li-Na; Holst, Lena Stenson; Wang, Ling-Mei; Rahn Landstrom, Tova; Pierce, Jaclyn H.; Quon, Michael J.; Degerman, Eva; Manganiello, Vincent C.
CORPORATE SOURCE: Pulmonary/Critical Care Medicine Branch, National Institutes of Health, Bethesda, MD, 20892, USA
SOURCE: Journal of Immunology (2000), 164(9), 4678-4688
CODEN: JOIMA3; ISSN: 0022-1767
PUBLISHER: American Association of Immunologists
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Wild-type (F/B), constitutively active (F/B*), and 3 kinase-inactive (F/Ba-, F/Bb-, F/Bc-) forms of Akt/protein kinase B (PKB) were permanently overexpressed in FDCP2 cells. In the absence of insulin-like growth factor-1 (IGF-1), activities of PKB, cyclic nucleotide phosphodiesterase 3B (PDE3B), and PDE4 were similar in nontransfected FDCP2 cells, mock-transfected (F/V) cells, and F/B and F/B- cells. In F/V cells, IGF-1 increased PKB, PDE3B, and PDE4 activities .apprx.2-fold. In F/B cells,

IGF-1, in a wortmannin-sensitive manner, increased PKB activity .apprx.10-fold and PDE3B phosphorylation and activity (.apprx.4-fold), but increased PDE4 to the same extent as in F/V cells. In F/B* cells, in the absence of IGF-1, PKB activity was markedly increased (.apprx.10-fold) and PDE3B was phosphorylated and activated (3-4-fold); wortmannin inhibited these effects. In F/B* cells, IGF-1 had little further effect on PKB and activation/phosphorylation of PDE3B. In F/B- cells, IGF-1 activated PDE4, not PDE3B, suggesting that kinase-inactive PKB behaved as a dominant neg. with respect to PDE3B activation. Thymidine incorporation was greater in F/B* cells than in F/V cells and was inhibited to a greater extent by PDE3 inhibitors than by rolipram, a PDE4 inhibitor. In F/B cells, IGF-1-induced phosphorylation of the apoptotic protein BAD was inhibited by the PDE3 inhibitor cilostamide. Activated PKB phosphorylated and activated rPDE3B in vitro. Apparently, PDE3B, not PDE4, is a target of PKB and activated PDE3B may regulate cAMP pools that modulate effects of PKB on thymidine incorporation and BAD phosphorylation in FDCP2 cells.

IT **67763-96-6, IGF-1**
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(**cyclic** nucleotide phosphodiesterase 3B as downstream target of protein kinase B is involved in regulation of effects of protein kinase B on thymidine incorporation in FDCP2 promyeloid cells)

REFERENCE COUNT: 85 THERE ARE 85 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 8 OF 31 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:279284 HCAPLUS
TITLE: Nutritionally induced anovulation in beef heifers: ovarian and endocrine function during realimentation and resumption of ovulation
AUTHOR(S): Bossis, I.; Wettemann, R. P.; Welty, S. D.; Vizcarra, J.; Spicer, L. J.
CORPORATE SOURCE: Department of Animal Science, Oklahoma Agricultural Experiment Station, Stillwater, OK, 74078, USA
SOURCE: Biology of Reproduction (2000), 62(5), 1436-1444
CODEN: BIREBV; ISSN: 0006-3363
PUBLISHER: Society for the Study of Reproduction
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Nutritionally induced anovulatory and cyclic Angus .times. Hereford heifers were used to evaluate follicular growth and concns. of hormones and metabolites during anovulation and resumption of ovulation. Anovulatory heifers were fed to gain 0.6 (LGAIN) or 1.5 (HGAIN) kg/day until resumption of ovulation, and heifers with normal estrous cycles were fed a maintenance diet (M). Follicles .gtoreq. 4 mm in diam. were measured by daily ultrasonog. in HGAIN and LGAIN heifers during one follicular wave before realimentation (Wan) and in two waves (W-2, W-1) immediately before the wave resulting in first ovulation or luteinization (W0). Ovaries of M heifers were evaluated to det. the day of ovulation of the second-wave dominant follicle (DF). Resumption of ovulation after realimentation occurred 23 days earlier in HGAIN than in LGAIN. Maximum diam., growth rate, and persistence of dominant follicles increased, while persistence of first subordinate follicles decreased between anovulation and resumption of ovulation in anovulatory heifers. Concns. of LH in serum were similar for HGAIN and LGAIN and gradually increased during realimentation. The increase in estradiol before the first ovulation was less in realimented heifers compared with cyclic heifers. Concns. of insulin-like growth factor-I (IGF-I) in HGAIN and LGAIN gradually increased during realimentation but were lower than concns. of **IGF -I** in **cyclic** heifers at ovulation. Increased diam., growth rate, and persistence of the DF were assocd. with increased concns. of LH, estradiol, and IGF-I during the transition from nutritionally

induced anovulation to resumption of ovulatory cycles.
REFERENCE COUNT: 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 9 OF 31 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:48670 HCAPLUS
DOCUMENT NUMBER: 132:217441
TITLE: Effect of Restricted Food Intake on Production, Catabolism, and Effects of **IGF-I** and **Cyclic** Nucleotides in Cultured Ovarian Tissue of Domestic Nutria (Myocastor coypus)
AUTHOR(S): Sirotkin, A. V.; Martin, D.; Suvegova, K.; Makarevich, A. V.; Genieser, H.-G.; Luck, M. R.; Osadchuk, L. V.
CORPORATE SOURCE: Research Institute of Animal Production, Nitra, 949 92, Slovakia
SOURCE: General and Comparative Endocrinology (2000), 117(2), 207-217
CODEN: GCENA5; ISSN: 0016-6480
PUBLISHER: Academic Press
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The aims of these in vitro expts. were to examine the effects of short-term food restriction on ovarian secretory activity and the role of IGF-I and cAMP- and cGMP-dependent intracellular mechanisms in the control of ovarian function in domestic nutria. Slices of ovary from sexually mature animals kept under conditions of normal and restricted (1/2 of std. ratio) feeding were cultured with or without IGF-I (50 ng/mL), cAMP analogs (dbcAMP and Rp-cAMPS), and cGMP analogs (8-pCPT-cGMP and Rp-8-Br-PET-cGMPS; all at 100 nM). In nonovarian cells dbcAMP activates and Rp-cAMPS inhibits protein kinase A, while 8-p-CPT-cGMP activates and RP-8-Br-PET-cGMPS inhibits protein kinase G and cGMP-gated ion channels. IGF-I release and catabolism, as well as the release of progesterone (P), estradiol (E), and cAMP by the cultures, were evaluated using RIA. IGF-I did not affect cAMP release, while each of the cAMP and cGMP analogs inhibited IGF-I release in both control and exptl. groups. Fasting did not affect cAMP or IGF-I release. It partially prevented the effect of Rp-cAMPS, but not of other **cyclic** nucleotides, on **IGF-I** release and inhibited IGF-I catabolism. The Rp-cAMPS and Rp-8-Br-PET-cGMPS also inhibited IGF-I catabolism and the effects were greater with tissue from food-restricted than control animals. Ovaries from the underfed nutria secreted significantly more P and less E than those from normally fed animals. IGF-I and both cAMP analogs, given alone, did not affect P release, whereas a combination of IGF-I and Rp-cAMPS increased P output in control, but not in the exptl. group. The 8-pCPT-cGMP had no effect on P release. Rp-8-Br-PET-cGMPS, given alone or in combination with IGF-I, dramatically increased P secretion by tissue from control but not underfed animals. Estradiol secretion by tissue from underfed animals was stimulated by IGF-I, dbcAMP, Rp-cAMPS, 8-pCPT-cGMP, and Rp-8-Br-PET-cGMPS as well as by combinations of IGF-I and Rp-cAMPS or Rp-8-Br-PET-cGMPS; these effects were not seen with control tissue. The results demonstrate that: ovaries of domestic nutria secrete IGF-I, P, E, and cAMP; cAMP and cGMP can influence IGF-I release and catabolism; the cyclic nucleotides may have an IGF-I-mediated effect on P and E output; **IGF-I** and **cyclic** nucleotides can prevent the effect of undernutrition on E, but not on P release; effects of cAMP and cGMP on P and E are probably not mediated by protein kinase A, protein kinase G, or cGMP-gated ion channels; and food restriction can influence ovarian IGF-I catabolism, P, and E release and modulate the effects of **cyclic** nucleotides and **IGF-I** on steroidogenesis. It is concluded that ovarian secretory activity may be regulated sep. by nutrition and the **cyclic** nucleotide-**IGF-I** system, and there may be functional interrelationships between these mechanisms. (c) 2000 Academic Press.

REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 10 OF 31 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1999:274432 HCAPLUS
DOCUMENT NUMBER: 131:57250
TITLE: Cyclic stretch regulates autocrine IGF-I in vascular smooth muscle cells: implications in vascular hyperplasia
AUTHOR(S): Standley, Paul R.; Obards, Tamar J.; Martina, Cherie L.
CORPORATE SOURCE: Department of Physiology, Midwestern University, Glendale, AZ, 85308, USA
SOURCE: American Journal of Physiology (1999), 276(4, Pt. 1), E697-E705
CODEN: AJPHAP; ISSN: 0002-9513
PUBLISHER: American Physiological Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Vascular smooth muscle cells (VSMC) subjected to acute or chronic stretch display enhanced growth rates in vitro and in vivo. Clin. examples of vascular hyperplasia (e.g., systolic hypertension and postinjury restenosis) suggest that local IGF-I expression is enhanced. Therefore, we investigated the role of in vitro cyclic stretch on rat VSMC IGF-I secretion and cellular growth. In serum-free medium, cyclic stretch (1 Hz at 120% resting length for 48 h) stimulated thymidine incorporation ~40% above that seen in nonstretched cells. Graded stretch magnitude (100-125% resting length) yielded graded increases in VSMC growth. Exogenous IGF-I increased growth of serum-starved, nonstretched VSMC in a dose-dependent manner, with maximal growth seen with 10-7 M. IGF-I secretion from stretched cells was 20- to 30-fold greater than from those cells cultured in a static environment. Stretch-induced increases in growth were completely blocked on addn. of anti-IGF-I and partially blocked with platelet-derived growth factor (PDGF) antibodies and with a tyrosine kinase inhibitor (tyrphostin-1). Finally, blockade of stretch-activated cation channels with GdCl3 profoundly inhibited stretch-induced growth. We conclude that stretch increases VSMC IGF-I secretion and that such autocrine IGF-I is required for stretch-induced growth. PDGF and stretch-sensitive cation channels are likely, addnl. components of a complex pathway that regulates stretch-induced VSMC seen in systolic hypertension and postinjury restenosis.
IT **67763-96-6, IGF-I**
RL: ADV (Adverse effect, including toxicity); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(**cyclic** stretch regulates autocrine IGF-I in vascular smooth muscle cells and implications in vascular hyperplasia)
REFERENCE COUNT: 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 11 OF 31 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1999:214466 HCAPLUS
DOCUMENT NUMBER: 131:39875
TITLE: Modification of plasma insulin-like growth factors and binding proteins during oral contraceptive use and the normal menstrual cycle
AUTHOR(S): Westwood, Melissa; Gibson, J. Martin; Pennells, Louise A.; White, Anne
CORPORATE SOURCE: Endocrine Sciences Research Group, Department of Medicine, and the School of Biological Sciences, University of Manchester, Manchester, UK
SOURCE: American Journal of Obstetrics and Gynecology (1999), 180(3, Pt. 1), 536-536

CODEN: AJOGAH; ISSN: 0002-9378
PUBLISHER: Mosby, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Sex steroid regulation of the insulin-like growth factor axis is a subject of contention. The authors examd. the effect of combined oral contraceptives and investigated the cyclic variations in the insulin-like growth factor axis. Fasting blood samples were taken from 9 women receiving oral contraceptives, 10 women receiving no medication, and 10 male subjects. In women receiving oral contraceptives, insulin-like growth factor binding protein 1 remained highly phosphorylated and levels were acutely increased by sex steroid treatment (305 .mu.g/L on day 14 of the cycle [medication phase] vs. 118 .mu.g/L during the medication-free period). In women receiving no medication, insulin-like growth factor binding protein 1 levels were significantly lower (69 .mu.g/L on day 14 of the menstrual cycle) and varied cyclically, with a rise in the late-secretory phase that coincided with the appearance of nonphosphorylated and less phosphorylated insulin-like growth factor binding protein 1 isoforms. Compared with those in untreated women and in men, insulin-like growth factor I levels were decreased in women receiving oral contraceptives (405 ng/mL in untreated women and 330 ng/mL in men vs. 287 ng/mL in women receiving oral contraceptives). Oral contraceptive use had no effect on insulin-like growth factor II levels, and neither insulin-like growth factor **I** nor **insulin-like growth factor** II showed **cyclic** variation. The bioavailability of insulin-like growth factor I is reduced in users of oral contraceptives. This may contribute to the metabolic changes obsd. in such subjects.

REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 12 OF 31 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1999:133022 HCAPLUS
DOCUMENT NUMBER: 130:333074
TITLE: The effects of equine somatotropin (eSt) on follicular development and circulating plasma hormone profiles in cyclic mares treated during different stages of the estrous cycle
AUTHOR(S): Cochran, R. A.; Leonardi-Cattolica, A. A.; Sullivan, M. R.; Kincaid, L. A.; Leise, B. S.; Thompson, D. L., Jr.; Godke, R. A.
CORPORATE SOURCE: Department of Animal Science, LSU Agricultural Center, Louisiana State University, Baton Rouge, LA, 70803, USA
SOURCE: Domestic Animal Endocrinology (1999), 16(1), 57-67
CODEN: DANEEE; ISSN: 0739-7240
PUBLISHER: Elsevier Science Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The effects of exogenous equine somatotropin (eST) administration on ovarian activity and plasma hormone levels were evaluated on horse and pony mares. The objectives of this study were to det. the effects of eST on follicular development and circulating concns. of LH (LH), estradiol, progesterone, and **insulin-like growth factor I** (**IGF-I**) in **cyclic** horse and pony mares. Sixteen mares received daily injections (i.m.) of eST at a concn. of 25 .mu.g/kg body wt. on either Days 6 through 12 (Treatment A) or 13 through 19 (Treatment B) postovulation. In addn., contemporary mares were similarly given the carrier vehicle and served as controls (Treatments C and D). Blood samples were collected at 24-h intervals and ultrasonog. evaluations were performed on the ovaries of each mare at 48-h intervals beginning on the first day of treatment and ending either on the day of ovulation or 5 d postovulation. Circulating

levels of insulin-like growth factor-I (IGF-I) were increased in treated mares by Day 3 post-treatment ($P < 0.05$). Also, mares in Treatment B exhibited a decrease in plasma estradiol concns. ($P < 0.05$) when compared with control mares on Days 1 through 5 postovulation of the post-treated estrous cycle. In addn., circulating LH levels were different for mares in Treatment A compared with controls on Days -8 through -1 pre-ovulation ($P < 0.05$). All follicles present on the ovaries of each mare were measured and placed into one of five categories based on their diam. Neither the mean no. of follicles per size category .gtoreq.8 mm in diam. nor the mean follicular diam. within each size category differed among treatment and control mares. However, eST treatment significantly increased the no. of follicles .ltoreq.7 mm on the ovaries of mares treated early in the estrous cycle when compared with control mares on Days 3 and 7 post-treatment and at the onset of standing estrus.

REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 13 OF 31 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1998:597963 HCAPLUS
DOCUMENT NUMBER: 130:14243
TITLE: New intrachinary cyclic nonapeptides of human IGF I and IGF II: synthesis and some properties
AUTHOR(S): Velek, J.; Barth, T.; Cerna, B.; Hauzerova, L.; Jiracek, J.; Pacakova, V.; Skarda, J.; Jeek, J.; Barthova, J.; Ubik, K.
CORPORATE SOURCE: Inst. of Organic Chemistry and Biochemistry, Academy of Sciences, Prague, 166 10/6, Czech Rep.
SOURCE: Peptides 1996, Proceedings of the European Peptide Symposium, 24th, Edinburgh, Sept. 8-13, 1996 (1998), Meeting Date 1996, 869-870. Editor(s): Ramage, Robert; Epton, Roger. Mayflower Scientific: Kingswinford, UK.
CODEN: 66RCA5
DOCUMENT TYPE: Conference
LANGUAGE: English
AB A symposium report on the prepn. and characterization of human insulin-like growth factor I (IGF **I**) and **IGF** II **cyclic** peptide analogs H-Cys-Ala-X-Arg-Ser-Cys-Asp-Leu-Y cyclic disulfides (X = Phe, Y = Arg-NH2, Arg-OH, Ala-NH2, Ala-OH; X = Tyr, Y = Ala-NH2, Arg-NH2).
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 14 OF 31 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1998:48532 HCAPLUS
DOCUMENT NUMBER: 128:162625
TITLE: The effects of tamoxifen on endometrial insulin-like growth factor-1 expression
AUTHOR(S): Elkas, John; Gray, Karen; Howard, Leonard; Petit, Nancy; Pohl, Joseph; Armstrong, Alicia
CORPORATE SOURCE: Divisions of Obstetrics and Gynecol., Natl. Naval Med. Cent., Bethesda, MD, USA
SOURCE: Obstetrics and Gynecology (New York) (1998), 91(1), 45-50
CODEN: OBGNAS; ISSN: 0029-7844
PUBLISHER: Elsevier Science Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB This study examd. whether modulation of insulin-like growth factor-1 and insulin-like growth factor-binding protein-1 expression underlies the uterotropic effects assocd. with tamoxifen therapy in postmenopausal breast cancer patients. Using immunohistochem. techniques, we analyzed 37 endometrial specimens from biopsies or hysterectomies for Ki-67,

insulin-like growth factor-1, and insulin-like growth factor-binding protein-1 expression. Specifically, five secretory- and three proliferative-phase endometrial specimens were used as controls; 20 specimens (including two endometrial adenocarcinomas) were analyzed from postmenopausal breast cancer patients treated with tamoxifen (20 mg/day) for at least 6 mo; and nine endometrial adenocarcinoma specimens from patients not treated with tamoxifen were studied. Intensity of immunostaining was quantified using digitized imaging techniques. Results: Insulin-like growth factor-1 and insulin-like growth factor-1-binding protein-1 were expressed in normal and neoplastic endometrium of all patients, regardless of tamoxifen treatment. However, **insulin-like growth factor-1** expression varied **cyclically** in histol. normal endometrium, was reduced in undifferentiated endometrial tumors, and was upregulated in tamoxifen-treated specimens. Insulin-like growth factor-binding protein-1 immunostaining did not vary during the menstrual cycle, but it was reduced significantly in benign tamoxifen-exposed tissue and endometrial adenocarcinomas, regardless of degree of differentiation or tamoxifen exposure. No correlation was found between the expression of insulin-like growth factor-1 and insulin-like growth factor-binding protein-1 and the proliferative indexes of the tissues examd. Conclusion: The expression of insulin-like growth factor-1 and insulin-like growth factor-binding protein-1 in the uterus supports an autocrine and/or paracrine role for these proteins in endometrial physiol. Although further studies are needed, our investigation suggests that altered expression of insulin-like growth factor-1 and insulin-like growth factor-binding protein-1 may contribute to the uterotropic effects of tamoxifen.

L6 ANSWER 15 OF 31 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1996:717694 HCAPLUS
DOCUMENT NUMBER: 126:43084
TITLE: Insulin-like growth factors and their binding proteins in the ovine oviduct during the estrous cycle
AUTHOR(S): Stevenson, K. R.; Wathes, D. C.
CORPORATE SOURCE: Dep. Farm Animal Equine Medicine Surgery, Royal Veterinary College, Potters Bar, Herts, EN6 1NB, UK
SOURCE: Journal of Reproduction and Fertility (1996), 108(1), 31-40
CODEN: JRPFA4; ISSN: 0022-4251
PUBLISHER: Journals of Reproduction and Fertility Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The oviduct is the site of fertilization, and factors present in the oviductal fluid appear to be crucial to the future success of conceptus development. The spatial and temporal localization of mRNA encoding components of the insulin-like growth factor (IGF) system (IGF-I, IGF-II, they type 1 IGF receptor, and IGF-binding proteins -2, -3 and -4) in the ovine oviduct were examd. in tissue samples taken during the early and late stages of follicular development, and the early, mid-, and late luteal phases using in situ hybridization. Expression of mRNA encoding **IGF-I** showed a **cyclical** pattern, increasing sharply in the mucosa and muscularis during the late follicular phase, then declining. In the muscularis, mRNA encoding IGF-II exhibited no temporal changes, but concns. in the mucosa increased from the late follicular stage to the early luteal phase. MRNA encoding the type 1 IGF receptor was present throughout the oviduct. Concns. increased during the follicular phase to peak in the early luteal phase in both the mucosa and muscularis. IGFBP-2 gene transcripts were undetectable at all time points examd. MRNAs encoding IGFBP-3 and IGFBP-4 were localized primarily in the stromal region. IGFBP-3 expression peaked in the late follicular stage of the cycle. The concn. of mRNA encoding IGFBP-4 increased in the follicular phase and was maintained at a significantly higher concn. during the early and mid-luteal stages. The coordinate max. expression of

mRNA for both IGF-I and IGF-II, the type 1 IGF receptor and IGFBP-3 during the period when the gametes and embryo are in transit suggests a role for IGF-I and IGF-II peptides in providing an oviductal environment propitious to conception and early embryonic growth and metab.

L6 ANSWER 16 OF 31 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1996:344455 HCAPLUS
DOCUMENT NUMBER: 125:26469
TITLE: Native and non-native structure in a protein-folding intermediate: spectroscopic studies of partially reduced IGF-I and an engineered alanine model
AUTHOR(S): Hua, Qing-Xin; Narhi, Linda; Jia, Wenhua; Arakawa, Tsutomu; Rosenfeld, Robert; Hawkins, Nessa; Miller, James A.; Weiss, Michael A.
CORPORATE SOURCE: Cent. Biomol. Struct. Function, Univ. Chicago, Chicago, IL, 60637, USA
SOURCE: Journal of Molecular Biology (1996), 259(2), 297-313
CODEN: JMOBAK; ISSN: 0022-2836
PUBLISHER: Academic
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The structure of a metastable folding intermediate of human insulin-like growth factor I (IGF-I) and an engineered model are investigated by CD and two-dimensional 1H NMR spectroscopy. The intermediate, which contains two of three native disulfide bonds, was trapped by acid quenching and isolated by reverse-phase HPLC. The reduced cysteine residues were mapped to residues 47 and 52 (corresponding to A6-A11 in insulin). In the native state this disulfide bridge anchors an adjoining amphipathic .alpha.-helix (helix 2; residues 42 to 49) against the hydrophobic core. Comparison of CD and 1H-NMR spectra demonstrates that the acid-quenched intermediate is partially folded and contains elements of native secondary and tertiary structure. Spectra are similar to those of an equil. model in which the reduced cysteine residues are replaced by alanine. Complete 1H-NMR sequential assignment of the alanine model has been obtained and demonstrates that removal of the disulfide bond is assocd. with local unfolding of the adjoining .alpha.-helix. Native secondary structure (including helixes 1 and 3) is otherwise retained and defines a folded subdomain. Long-range nuclear Overhauser effects (NOE) within this subdomain are similar to those of native IGF-I; no non-native NOE is obsd. Our results support the hypothesis that folding of the insulin motif is directed by a subset of native structural elements and that these elements form at an early step in the pathway. Formation of helix 2, despite its prominence in the native state, is likely to represent a late step. Hydrophobic collapse of this segment appears to precede helix formation.
IT **122635-51-2, Cyclic** (6.fwdarw.47),(18.fwdarw.61),(48.fwdarw.52)-tris(disulfide) human IGF-I
RL: PRP (Properties)
(spectroscopic studies of partially reduced IGF-I and an engineered alanine model in relation to native and non-native structure in a protein-folding intermediate)

L6 ANSWER 17 OF 31 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1996:47615 HCAPLUS
DOCUMENT NUMBER: 124:166079
TITLE: IRS-I expression on the luteinized rat ovary: **IGF-I** and **cyclic** AMP effects on IRS-I tyrosine phosphorylation
AUTHOR(S): Talavera, Francisco; Chen, Zhouji; Menon, K. M. J.
CORPORATE SOURCE: Ann Arbor, MI, 48109-0278, USA
SOURCE: Biochimica et Biophysica Acta (1996), 1310(1), 10-18
CODEN: BBACAQ; ISSN: 0006-3002
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal

LANGUAGE: English

AB The expression of insulin receptor substrate-I (IRS-I) mRNA was demonstrated in rat luteal cells by Northern blot anal., in situ hybridization as well as by reverse transcriptase polymerase chain reaction. Western blot with a polyclonal anti IRS-I antibody showed the presence of a 183 kDa protein which corresponds to the size of IRS-I reported in other tissues. Further studies were performed to det. whether human chorionic gonadotropin (hCG) can interact with the insulin-like growth factor-I (IGF-I) signaling pathway to increase tyrosine phosphorylation of IRS-I. While hCG alone was ineffective in stimulating the phosphorylation of IRS-I, IGF-I mediated phosphorylation of IRS-I was increased by prior exposure to hCG. These results were further confirmed by the immunopptn. of IRS-I from the lysate of hCG- and IGF-I-treated luteal cell cultures followed by Western blotting with anti-phosphotyrosine antibody. Similarly, pretreatment with forskolin also increased IGF-I stimulated IRS-I phosphorylation. The increased tyrosine phosphorylation of IRS-I seen in response to IGF-I stimulation following treatment with either hCG or forskolin was not due to an increase in IRS-I content. Furthermore, IGF-I receptor tyrosine kinase activity was not affected by forskolin, suggesting that the increase in IRS-I tyrosine phosphorylation was not the result of an increase in its activity. Thus, the authors conclude that hCG/LH and IGF-I signaling pathways 'cross-talk' to increase the levels of IRS-I tyrosine phosphorylation. The obsd. increase in IRS-I tyrosine phosphorylation may be the result of an increase in the stability of the phosphorylated form of IRS-I.

L6 ANSWER 18 OF 31 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1995:833975 HCAPLUS

DOCUMENT NUMBER: 123:223765

TITLE: Tissue specific and **cyclic** expression of **insulin-like growth factor** binding proteins **-1**, -2, -3, -4, -5, -6 in the rat oviduct

AUTHOR(S): Erickson, Greogry F.; Grivigian, Michael R.; Sadighian, Ali R.; Nakatani, Akira; Ling, Nicholas; Shimasaki, Shunichi

CORPORATE SOURCE: Dep. of Reproductive Medicine, Univ. of California, San Diego, CA, 92093-0674, USA

SOURCE: Endocrine (1995), 3(9), 667-76
CODEN: EOCRE5; ISSN: 1355-008X

PUBLISHER: Macmillan Scientific & Medical Division

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Although much is known about the expression insulin-like growth factors (IGF) and their receptors in the murine oviduct, significantly less is known about the expression of IGF binding proteins (IGFBPs). To fill this gap in the knowledge, the authors identified and characterized the tissue specific expression of IGFBP-1 to -6 in rat oviducts over the estrous cycle by in situ hybridization and immunocytochem. Tissues were analyzed on proestrus (P1000 h, P2000 h), estrus (E0200, E1000 h), and diestrus 1 and II (D1 1100 h, DII 1100 h). IGFBP-1 was undetectable in the oviduct over the cycle. IGFBP-2 was selectively expressed in the luminal epithelium. The mRNA levels were high between P2000 h and E1000 h but low or undetectable thereafter. Immunoreactive IGFBP-2 was strong to very strong in these cells over most of the cycle. IGFBP-3 mRNA was undetectable in the oviduct; however, strong hybridization and immunoreactive signals were present in the mesosalpinx and mesotubarium, particularly at DI and DII. IGFBP-4 mRNA was not detected in the oviduct; however, strong hybridization and immunoreactive signals were present in the mesosalpinx and mesotubarium, particularly at DI and DII. IGFBP-4 mRNA was not detected in the oviduct. In contrast, immunoreactive IGFBP-4 was obsd. in the luminal epithelium and the intensity was very strong

after ovulation (E1000 h, DI and DII). IGFBP-5 and -6 mRNAs were selectively expressed in circular smooth muscle cells. Hybridization signals were evident over the cycle, but were greatest at estrus. By comparison, IGFBP-5 and -6 proteins were essentially undetectable in these cells except at DII 1100 h when immunostaining was moderate to high. Luminal epithelial cells were weakly pos. for IGFBP-5 and -6. However, intense immunostaining was assocd. with the ciliated border and the luminal fluid juxtaposed to these cells during the cycle. The oocyte-cumulus complexes were immunostained intensely for IGFBP-2, -4, -5 and -6, but their mRNAs were undetectable. The signals were strongest in degenerating cumulus cells suggesting a potential role for these IGFBPs in cumulus apoptosis. These results demonstrate that the estrous cycle is accompanied by major changes in the pattern of expression of IGFBP-2, -4, -5 and -6 in the rat oviduct. The authors therefore conclude that the regulated prodn. of these particular IGFBPs may be functionally important in modulating IGF activities in the oviduct, oocyte cumulus complexes, and perhaps the preimplantation embryo as well.

L6 ANSWER 19 OF 31 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1995:761354 HCAPLUS
DOCUMENT NUMBER: 123:161681
TITLE: Regulation of **insulin-like growth factor I** transcription by **cyclic** adenosine 3',5'-monophosphate (cAMP) in fetal rat bone cells through an element within exon 1: protein kinase a-dependent control without a consensus cAMP response element
AUTHOR(S): McCarthy, Thomas L.; Thomas, Michael J.; Centrella, Michael; Rotwein, Peter
CORPORATE SOURCE: Sectino of Plastic Surgery, Yale Univ. Sch. Medicine, New Haven, CT, 06520-8041, USA
SOURCE: Endocrinology (1995), 136(9), 3901-8
CODEN: ENDOAO; ISSN: 0013-7227
PUBLISHER: Endocrine Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Insulin-like growth factor I (IGF-I) is a locally synthesized anabolic growth factor for bone. IGF-I synthesis by primary fetal rat osteoblasts (Ob) is stimulated by agents that increase the intracellular cAMP concn., including prostaglandin E2 (PGE2). Previous studies with Ob cultures demonstrated that PGE2 enhanced IGF-I transcription through selective use of IGF-I promoter 1, with little effect on IGF-I mRNA half-life. Transient transfection of Ob cultures with an array of promoter 1-luciferase reporter fusion constructs has now allowed localization of a potential cis-acting promoter element(s) responsible for cAMP-stimulated gene expression to the 5'-untranslated region (5'-UTR) of IGF-I exon 1, within a segment lacking a consensus cAMP response element. This evidence derives from three principal observations: (1) a transfection construct contg. only 122 nucleotides (nt) of promoter 1 and 328 nt of the 5'-UTR retained full PGE2-stimulated reporter expression; (2) maximal PGE2-driven reporter expression required the presence of nt 196 to 328 of exon 1 when tested within the context of IGF-I promoter 1; (3) cotransfection of IGF-I promoter-luciferase-reporter constructs with a plasmid encoding the .alpha.-isoform of the catalytic subunit of murine cAMP-dependent protein kinase (PKA) produced results comparable to those seen with PGE2 treatment, whereas cotransfection with a plasmid encoding a mutant regulatory subunit of PKA that cannot bind cAMP blocked PGE2-induced reporter expression. DNase I footprinting of the 5'-UTR of exon 1 demonstrated protected sequences at HS3A, HS3B, and HS3D, three of six DNAprotein binding sites previously characterized with rat liver nuclear exts. Of these three regions, only the HS3D binding site is located within the functionally identified hormonally responsive segment of IGF-I

exon 1. These results directly implicate PKA in the control of IGF-I gene transcription by PGE2 and identify a segment of IGF-I exon 1 as being essential for this hormonal regulation.

L6 ANSWER 20 OF 31 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1995:740211 HCAPLUS
DOCUMENT NUMBER: 123:133617
TITLE: Divergence in macrophage insulin-like growth factor-I (IGF-I) synthesis induced by TNF-.alpha. and prostaglandin E2
AUTHOR(S): Fournier, Thierry; Riches, David W. H.; Winston, Brent W.; Rose, David M.; Young, Scott K.; Noble, Paul W.; Lake, Fiona R.; Henson, Peter M.
CORPORATE SOURCE: Dep. Pediatrics, Natl. Jewish Cent. Immunol. Respiratory Med., Denver, CO, 80206, USA
SOURCE: Journal of Immunology (1995), 155(4), 2123-33
CODEN: JOIMA3; ISSN: 0022-1767
PUBLISHER: American Association of Immunologists
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Increased synthesis of insulin-like growth factor I (IGF-I), a fibroblast growth factor, is induced in murine macrophages by TNF-.alpha.. TNF-.alpha. also induces macrophages to express cytocidal activity, but only during costimulation with interferons. Since prostaglandin E2 (PGE2) is known to inhibit macrophage cytocidal activity, its possible reciprocal enhancement of IGF-I synthesis was examd. PGE2 or dibutyryl cAMP (dbcAMP) stimulated the synthesis of IGF-I similarly to TNF-.alpha. in magnitude and time course. TNF-.alpha. did not increase IGF-I synthesis by first inducing PGE2 synthesis, because indomethacin was unable to block the effect of TNF-.alpha.. PGE2 did not stimulate IGF-I synthesis by first inducing TNF-.alpha. prodn., because (1) anti-TNF-.alpha. antibody (Ab) did not block PGE2-induced IGF-I synthesis, and (2) PGE2 down-regulated TNF-.alpha. mRNA levels and did not affect levels of the cytokine in supernatants. Moreover, the difference in the induction of IGF-I was obsd. at the level of signal transduction, in that PGE2 and dbcAMP increased cAMP-dependent protein kinase (PKA) activity, whereas TNF-.alpha. stimulated the mitogen-activated protein (MAP) kinase pathway. Divergence between the two pathways was also noted in the regulation of IGF-I at the mRNA level, and an additive effect on IGF-I synthesis was obsd. when cells were incubated with the combination of TNF-.alpha. plus PGE2 or dbcAMP. Collectively, these data suggest that TNF-.alpha. and PGE2 stimulate IGF-I synthesis in macrophages by two sep. pathways, and that PGE2 acts as a pos. stimulus for IGF-I synthesis through a cAMP/PKA pathway.

L6 ANSWER 21 OF 31 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1995:356265 HCAPLUS
DOCUMENT NUMBER: 122:129322
TITLE: Regulation of expression of surface aminopeptidase N in human glomerular mesangial cells. II. Effect of cyclic nucleotides, growth factors and mitogens
AUTHOR(S): Stefanovic, Vladisav; Vlahovic, Predrag
CORPORATE SOURCE: Inst. of Nephrology and Hemodialysis, Fac. of Medicine, Nis, Yugoslavia
SOURCE: Cellular Physiology and Biochemistry (1995), 5(2), 127-34
CODEN: CEPBEW; ISSN: 1015-8987
PUBLISHER: Karger
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Aminopeptidase N of human glomerular mesangial cells is an ectoenzyme. Control of its expression by mitogens has been demonstrated. Aminopeptidase N activity was increased after 72 h of treatment with

8-bromo-cAMP and two cAMP-stimulating agents, forskolin and isobutylmethylxanthine (IBMX). IBMX (100 .mu.M), a phosphodiesterase inhibitor, stimulated aminopeptidase N activity by 40%. Stimulation by cAMP and forskolin was less marked, 25 and 28%, resp. Phorbolmyristate acetate (PMA) treatment increased enzyme activity by 80%; however, after treatment with both PMA and cAMP or PMA and forskolin, aminopeptidase N activity increased by 178 and 190%, resp. Bacterial lipopolysaccharide (LPS) moderately stimulated surface aminopeptidase N activity; LPS potentiated the effect of PMA on enzyme activity. Thrombin (0.1-5 U/mL) also stimulated aminopeptidase N activity, by 27% at a concn. of 2.5 U/mL. The effects of thrombin and cAMP for forskolin were additive. Dexamethasone (0.1-10 .mu.M) treatment for up to 6 days was without effect on aminopeptidase N expression. A short treatment (72 h) with interferon-.gamma. (1-5,000 U/mL) increased enzyme activity by 26%. The effect of insulin growth factor I (50 ng/mL) and endothelin (0.1-100 nM) on aminopeptidase N activity was not significant. Serum withdrawal from the culture medium was accompanied by a significant increase in enzyme activity in the 48-h culture. This study shows that expression of mesangial cell aminopeptidase N is regulated by mitogens, cAMP and c-AMP-stimulating agents acting in concert.

L6 ANSWER 22 OF 31 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1994:672355 HCAPLUS
DOCUMENT NUMBER: 121:272355
TITLE: Similarities in the regulation of hIGFBP-1 and PEPCK gene expression
AUTHOR(S): Powell, David R.; Lee, Phillip D. K.; Suwanichkul, Adisak
CORPORATE SOURCE: Department Pediatrics, Baylor College Medicine, Houston, TX, 77030, USA
SOURCE: International Congress Series (1994), 1056(INSULIN-LIKE GROWTH FACTORS AND THEIR REGULATORY PROTEINS), 141-50
CODEN: EXMDA4; ISSN: 0531-5131
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review, with 48 refs., on regulation of human insulin-like growth factor binding protein-1 (hIGFBP-1) expression is similar to that of phosphoenolpyruvate carboxykinase (PEPCK), a key enzyme in gluconeogenesis. Both genes are expressed primarily in liver and kidney. As with PEPCK, hepatic expression of hIGFBP-1 is regulated by multiple hormones (e.g., insulin and corticosteroids) and cAMP and primarily at the level of transcription and many cis elements important to this regulation are located in the first 460 base pairs (bp) 5' to the transcription start site. Comparison of their organization and function suggests that the PEPCK and hIGFBP-1 promoters use similar cis elements and trans-acting factors in a different spatial organization to achieve similar effects.

L6 ANSWER 23 OF 31 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1994:549378 HCAPLUS
DOCUMENT NUMBER: 121:149378
TITLE: Interrelationships among estrogen, **insulin-like growth factor-I** and **cyclic** adenosine monophosphate in the regulation of uterine progesterone and estrogen receptors
AUTHOR(S): Aronica, Susan Marie
CORPORATE SOURCE: University of Illinois, Urbana, IL, USA
SOURCE: (1994) 173 pp. Avail.: Univ. Microfilms Int., Order No. DA9416335
From: Diss. Abstr. Int. B 1994, 55(1), 52-3
DOCUMENT TYPE: Dissertation
LANGUAGE: English

AB Unavailable

L6 ANSWER 24 OF 31 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1993:464793 HCAPLUS
DOCUMENT NUMBER: 119:64793
TITLE: Identification of a promoter element which participates in cAMP-stimulated expression of human insulin-like growth factor-binding protein-1
AUTHOR(S): Suwanichkul, Adisak; DePaolis, Laura A.; Lee, Phillip D. K.; Powell, David R.
CORPORATE SOURCE: Dep. Pediatr., Baylor Coll. Med., Houston, TX, 77030, USA
SOURCE: Journal of Biological Chemistry (1993), 268(13), 9730-6
CODEN: JBCHA3; ISSN: 0021-9258
DOCUMENT TYPE: Journal
LANGUAGE: English
AB HEP G2 cells were used to evaluate the role of cAMP in stimulating insulin-like growth factor-binding protein -1 (IGFBP-1) expression. Initial studies found that either 0.5 or 5.0 mM dibutyryl cAMP (Bt2cAMP) alone, or the combination of 0.5 mM Bt2cAMP and 2 mM theophylline, increased IGFBP-1 protein levels, mRNA levels, and promoter activity, but that the addn. of theophylline to Bt2cAMP was required to give a .apprx.5-fold increase in promoter activity. Deletion mutations of the IGFBP-1 promoter were used to show that much of the effect of Bt2cAMP and theophylline was conferred by the region between 269 and 246 base pairs (bp) 5' of the IGFBP-1 mRNA cap site. DNase I protection assays showed that HEP G2 nuclear ext. footprinted the region from 273 to 249 bp 5' of the cap site; this region, designated P2, has a central CGTCA motif common to cAMP-responsive elements (CREs). Mutating the CGTCA motif in the 1205-bp IGFBP-1 promoter construct to TAGCA led to a 51% decrease in the ability of Bt2cAMP and theophylline to stimulate IGFBP-1 promoter activity above control levels. In addn., cotransfection of the catalytic subunit of cAMP-dependent protein kinase A (PKA) with the native 1205-bp IGFBP-1 promoter construct stimulated IGFBP-1 promoter activity 3.9-fold, but the TAGCA mutation decreased by 73% the ability of PKA to stimulate IGFBP-1 promoter activity above control levels. Mutating the CGTCA motif to TAGCA also blocked the ability of both crude HEP G2 nuclear ext. and recombinant CRE-binding protein to bind to the P2 element. These data suggest that the P2 element is a CRE that confers at least part of the stimulatory effect of cAMP on the human IGFBP-1 promoter.

L6 ANSWER 25 OF 31 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1992:35054 HCAPLUS
DOCUMENT NUMBER: 116:35054
TITLE: Human chorionic gonadotropin up-regulates insulin-like growth factor-I receptor gene expression of Leydig cells
AUTHOR(S): Nagpal, Madan L.; Wang, Deli; Calkins, Jo H.; Chang, Weiwei; Lin, Tu
CORPORATE SOURCE: Med. Serv., W. J. B. Dorn Veterans Hosp., Columbia, SC, 29201, USA
SOURCE: Endocrinology (1991), 129(6), 2820-6
CODEN: ENDOAO; ISSN: 0013-7227
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The effects of human chorionic gonadotropin (hCG) 8-bromo-cAMP, PMA, and forskolin on IGF-I receptor gene expression of Leydig cells were studied. The treatment of purified Leydig cells with hCG caused a dose-dependent increase in [125I]IGF-I binding to Leydig cells without changes in binding affinity, indicating that the increased binding was due to increased receptor nos. and not to increased affinity. The minimal time required for hCG to induce IGF-I binding was 6 h, and it reached a plateau at 16 h.

8-Bromo-cAMP (1 mM) increased IGF-I binding about 2-fold, and forskolin (10 .mu.M) increased binding about 5[illegible]. The RNase protection assay showed that hCG and 8-bromo-cAMP increased IGF-I receptor mRNA expression as early as 2 h before the increase in IGF-I binding. The induction by hCG was >3.5-fold at 4 h and decreased to about 2-fold at 6 h. PMA had a very small effect on IGF-I receptor mRNA levels (1.5-fold increase at 2 h and no changes at 4 and 6 h). Thus, IGF-I receptors can be upregulated by hCG, 8-bromo-cAMP, and forskolin. The up-regulation of IGF-I receptor no. is assocd. with transient increases in IGF-I receptor mRNA levels. This could be a mechanism by which hCG and IGF-I interact to enhance Leydig cell steroidogenesis.

L6 ANSWER 26 OF 31 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1990:585365 HCAPLUS
DOCUMENT NUMBER: 113:185365
TITLE: Regulation of 11.beta.- and 17.alpha.-hydroxylases in cultured bovine adrenocortical cells: 3',5'-**cyclic** adenosine monophosphate, **insulin-like growth factor-I**, and activators of protein kinase C
AUTHOR(S): Naseeruddin, Syed A.; Hornsby, Peter J.
CORPORATE SOURCE: Dep. Cell Mol. Biol., Med. Coll. Georgia, Augusta, GA, 30912, USA
SOURCE: Endocrinology (1990), 127(4), 1673-81
CODEN: ENDOAO; ISSN: 0013-7227
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The induction of steroid 11.beta.-hydroxylase and 17.alpha.-hydroxylase was studied in bovine adrenocortical cell cultures in serum-free medium. In the absence of insulin-like growth factor (IGF)-I or insulin, cholera toxin failed to increase 11.beta.-hydroxylase enzyme activity or mRNA levels; cholera toxin increased 11.beta.-hydroxylase activity and mRNA only in the presence of 10 nM IGF-I or of higher concns. of insulin. 17.alpha.-Hydroxylase enzyme activity and mRNA, in contrast, were increased maximally by cholera toxin in the absence of insulin or IGF. When cultures were incubated with cholera toxin, cAMP analogs, forskolin, ACTH, or PGE1 in defined medium with insulin, all agents increased the mRNA levels for 11.beta.-hydroxylase and 17.alpha.-hydroxylase. 11.beta.-Hydroxylase enzyme activity was detectable in control (insulin only) cultures and was increased to varying extents by the different agents. 17.alpha.-Hydroxylase enzyme activity was undetectable in control cultures and was increased more than 50-fold by all agents. The sensitivity of induction of 11.beta.-hydroxylase and 17.alpha.-hydroxylase enzyme activities by cAMP was compared by using serial dilns. of an equimolar mixt. of N6-monobutyryl-cAMP and 8-bromo-cAMP. For both enzymes, the response curve was biphasic, with a maximal response in the range of 20 to 100 .mu.M each analog, but the decline in response at higher cAMP concns. was much more marked for 11.beta.-hydroxylase than for 17.alpha.-hydroxylase. The effects of activation of protein kinase C were studied in cultures incubated with 12-O-tetradecanoylphorbol-13-acetate (TPA) together with a cAMP analog mixt. TPA decreased cAMP-induced 11.beta.-hydroxylase mRNA; TPA also decreased the induction of 17.alpha.-hydroxylase mRNA, as previously reported. TPA caused a dose-dependent decrease in cAMP-induced 11.beta.-hydroxylase enzyme activity. Angiotensin II at 0.1 to 10 .mu.M also decreased induction of 11.beta.-hydroxylase. Induction of 11.beta.-hydroxylase and 17.alpha.-hydroxylase is coordinately regulated by cAMP, protein kinase C, and IGF-I/insulin, but responses to these regulators differ in various respects between these two cytochrome P 450 enzymes.

L6 ANSWER 27 OF 31 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1990:585324 HCAPLUS

DOCUMENT NUMBER: 113:185324
TITLE: Adipose conversion of 3T3-L1 cells in a serum-free culture system depends on epidermal growth factor, **insulin-like growth factor I**, corticosterone, and **cyclic** AMP
AUTHOR(S): Schmidt, Wilfried; Poell-Jordan, Gisela; Loeffler, Georg
CORPORATE SOURCE: Dep. Biochem., Microbiol. Genet., Univ. Regensburg, Regensburg, D-8400, Germany
SOURCE: Journal of Biological Chemistry (1990), 265(26), 15489-95
CODEN: JBCHA3; ISSN: 0021-9258
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A culture system for 3T3-L1 preadipocytes based on a serum-free chem. defined medium contg. fetuin, transferrin, and pantothenate is described. In this system, adipose conversion depends on the following conditions. In the presence of high insulin concns. (1 .mu.M), addn. of corticosterone together with IBMX) for not more than the 1st 4 days after confluence to the culture medium induces maximal adipose conversion within 12-14 days. IBMX may be replaced by forskolin or permeable analogs of cAMP, indicating that its effect is due to elevated cellular cAMP levels. At low insulin concns. (1 nM), adipose conversion is reduced. Growth hormone or insulin-like growth factor I together with EGF have to be present as a medium supplement together with corticosterone and IBMX to get maximal adipose conversion. The induction of adipose conversion by corticosterone and IBMX in the presence of either high insulin concns. or insulin-like growth factor I together with EGF is accompanied by postconfluent mitoses. Inhibitors of DNA replication markedly reduce adipose conversion. Fibroblast growth factor and platelet-derived growth factor, although acting as potent mitogens on 3T3-L1 cells, do not support adipose conversion induced by corticosterone and IBMX.

L6 ANSWER 28 OF 31 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1990:565806 HCAPLUS
DOCUMENT NUMBER: 113:165806
TITLE: **Cyclic** AMP induces **insulin-like growth factor I** synthesis in osteoblast-enriched cultures
AUTHOR(S): McCarthy, Thomas L.; Centrella, Michael; Canalis, Ernesto
CORPORATE SOURCE: Med. Cent., Saint Francis Hosp., Hartford, CT, 06105, USA
SOURCE: Journal of Biological Chemistry (1990), 265(26), 15353-6
CODEN: JBCHA3; ISSN: 0021-9258
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Isobutylmethylxanthine, forskolin, and dibutyryl cAMP, agents that elevate intracellular cAMP levels by discrete mechanisms, also enhanced the steady state transcript and polypeptide level of IGF-I in rat osteoblast-enriched cultured. The calcium ionophore ionomycin and phorbol myristate acetate did not increase IGF-I synthesis. In contrast, none of the agents tested increased the steady state transcript or polypeptide levels for IGF-II. The rat IGF-I gene is >90 kilobases in length, and contains at least 3 promoter regions. The present data represent the first demonstration of cAMP mediated IGF-I gene regulation and indicate the potential for preferential promoter usage for modulating IGF-I gene expression in bone.

L6 ANSWER 29 OF 31 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1989:568073 HCAPLUS
DOCUMENT NUMBER: 111:168073

TITLE: Regulation of IGF-I receptors by corticotropin and angiotensin-II in cultured bovine adrenocortical cells
AUTHOR(S): Louveau, Isabelle; Penhoat, Armelle; Saez, Jose M.
CORPORATE SOURCE: Hop. Debrousse, Lyon, 69322, Fr.
SOURCE: Biochemical and Biophysical Research Communications (1989), 163(1), 32-6
CODEN: BBRCA9; ISSN: 0006-291X
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The effects of angiotensin II (A-II) and ACTH on insulin-like growth factor-I (IGF-I) receptors of bovine adrenocortical cells were investigated. Pretreatment of cells for 48 h with ACTH or A-II induced, in a dose-dependent manner, an increase in [125I]IGF-I binding (ED50 .simeq. 10-11M, Vmax = 10-10M with ACTH; ED50 .simeq. 3.10-9M, Vmax = 10-7M with A-II). This resulted from an increase in the no. of binding sites without modification of the binding affinity. Pretreatment with 8-bromo-cAMP (10-3M), a phorbol ester (PMA 10-7M) + ionophore A 23187 (10-7M) produced a pos. regulation of IGF-I receptors. Glucocorticoids did not mediate the effect of A-II and ACTH on IGF-I receptors. Since previous studies have shown that IGF-I increases ACTH and A-II receptors the present data indicate the existence of a reciprocal pos. trophic effect between IGF-I and the 2 hormones on the regulation of their specific membrane-bound receptors.

L6 ANSWER 30 OF 31 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1988:32671 HCAPLUS
DOCUMENT NUMBER: 108:32671
TITLE: Insulin-like growth factor I action on rat anterior pituitary cells: effects of intracellular messengers on growth hormone secretion and messenger ribonucleic acid levels
AUTHOR(S): Morita, Shigeki; Yamashita, Shunichi; Melmed, Shlomo
CORPORATE SOURCE: Sch. Med., Univ. California, Los Angeles, CA, 90048, USA
SOURCE: Endocrinology (1987), 121(6), 2000-6
CODEN: ENDOAO; ISSN: 0013-7227
DOCUMENT TYPE: Journal
LANGUAGE: English
AB It was previously shown that insulin-like growth factor (IGF-I) suppresses basal and growth hormone-releasing hormone (GHRH)-induced growth hormone (GH) gene transcription. CAMP is a putative intracellular mediator of GHRH action. The mechanism of IGF-I action on the somatotroph with or without cAMP activators was thus examd. Primary rat pituitary cells growing in serum-free medium were treated with IGF-I. GH secretion was measured by RIA, and mRNA levels were measured by hybridization to [32P]cDNA for GH. 8-Bromo-cAMP (8-Br-cAMP; 0.625 mM) stimulated GH mRNA levels after 72 h by 238%. IGF-I (6.5 nM) caused a 64% inhibition of 8-Br-cAMP-stimulated GH mRNA levels and a similar inhibition of GH secretion. This inhibition was time and dose dependent, with maximal (71%) suppression of cAMP-induced GH achieved with 13 nM IGF-I after 72 h. Forskolin (1 .mu.M), a stimulator of adenylate cyclase, stimulated GH secretion (198%), which was inhibited by IGF-I by 42%. TPA, 50 nM, a potent activator of protein kinase C, strongly stimulated GH secretion (347%), which was similarly suppressed by IGF-I by 51%. The suppressive action of IGF-I on somatotroph gene expression is unimpaired by direct activation of both cAMP and protein kinase C, suggesting that IGF-I acts upon the GH gene by a mechanism that is not altered by these 2nd messengers. The neg. feedback inhibition of physiol. concns. of IGF-I on GH, therefore, appears to override the potent stimulation of GH by these intracellular messengers.

L6 ANSWER 31 OF 31 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1982:504762 HCAPLUS

DOCUMENT NUMBER: 97:104762
TITLE: Cyclic nucleotides and somatomedin action in cartilage
AUTHOR(S): Stuart, Charles A.; Vesely, David L.; Provow, Sally A.; Furlanetto, Richard W.
CORPORATE SOURCE: Med. Branch, Univ. Texas, Galveston, TX, 77550, USA
SOURCE: Endocrinology (1982), 111(2), 553-8
CODEN: ENDOAO; ISSN: 0013-7227
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The role of cyclic nucleotides was evaluated in the stimulation of cartilage metab. by somatomedin-C (Sm-C) [61461-67-4]. Tissue concns. of cAMP [60-92-4] in chick cartilage declined rapidly during organ culture, despite the presence of serum or Sm-C. The cGMP [7665-99-8] concns. in cartilage declined rapidly during control incubations, but were augmented significantly at 30 and 60 min of incubation with the addn. of serum or Sm-C. Thereafter, cGMP concns. declined toward the levels of incubated control cartilages. Sm-C had no effect on cAMP phosphodiesterase [9036-21-9] activity. N6-monobutyryl cAMP [13117-60-7] Stimulated sulfate uptake, but dibutyryl cGMP [32266-35-6] did not. Sm-C did not stimulate adenylate cyclase [9012-42-4] in purified plasma membranes from chondrocytes, whereas it stimulated both plasma membrane and cytosol guanylate cyclase [9054-75-5] at concns. of Sm-C as low as 10-12M. Thus, cAMP is not the intracellular 2nd messenger for Sm-C in cartilage, whereas cGMP may be a 2nd messenger mediating a portion of Sm's stimulation of cartilage metab.

IT **61461-67-4**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(**cyclic** nucleotides of cartilage response to)

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSSPTA1653MXA

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * * Welcome to STN International * * * * * * * * * *

NEWS 1		Web Page URLs for STN Seminar Schedule - N. America
NEWS 2	Apr 08	"Ask CAS" for self-help around the clock
NEWS 3	Jun 03	New e-mail delivery for search results now available
NEWS 4	Aug 08	PHARMAMarketLetter(PHARMAML) - new on STN
NEWS 5	Aug 19	Aquatic Toxicity Information Retrieval (AQUIRE) now available on STN
NEWS 6	Aug 26	Sequence searching in REGISTRY enhanced
NEWS 7	Sep 03	JAPIO has been reloaded and enhanced
NEWS 8	Sep 16	Experimental properties added to the REGISTRY file
NEWS 9	Sep 16	CA Section Thesaurus available in CAPLUS and CA
NEWS 10	Oct 01	CASREACT Enriched with Reactions from 1907 to 1985
NEWS 11	Oct 24	BEILSTEIN adds new search fields
NEWS 12	Oct 24	Nutraceuticals International (NUTRACEUT) now available on STN
NEWS 13	Nov 18	DKILIT has been renamed APOLLIT
NEWS 14	Nov 25	More calculated properties added to REGISTRY
NEWS 15	Dec 04	CSA files on STN
NEWS 16	Dec 17	PCTFULL now covers WP/PCT Applications from 1978 to date
NEWS 17	Dec 17	TOXCENTER enhanced with additional content
NEWS 18	Dec 17	Adis Clinical Trials Insight now available on STN
NEWS 19	Jan 29	Simultaneous left and right truncation added to COMPENDEX, ENERGY, INSPEC
NEWS 20	Feb 13	CANCERLIT is no longer being updated
NEWS 21	Feb 24	METADEX enhancements
NEWS 22	Feb 24	PCTGEN now available on STN
NEWS 23	Feb 24	TEMA now available on STN
NEWS 24	Feb 26	NTIS now allows simultaneous left and right truncation
NEWS 25	Feb 26	PCTFULL now contains images
NEWS 26	Mar 04	SDI PACKAGE for monthly delivery of multifile SDI results
NEWS 27	Mar 20	EVENTLINE will be removed from STN
NEWS 28	Mar 24	PATDPAFULL now available on STN
NEWS 29	Mar 24	Additional information for trade-named substances without structures available in REGISTRY
NEWS 30	Apr 11	Display formats in DGENE enhanced
NEWS 31	Apr 14	MEDLINE Reload
NEWS 32	Apr 17	Polymer searching in REGISTRY enhanced
NEWS 33	Apr 21	Indexing from 1947 to 1956 being added to records in CA/CAPLUS
NEWS 34	Apr 21	New current-awareness alert (SDI) frequency in WPIDS/WPINDEX/WPIX
NEWS 35	Apr 28	RDISCLOSURE now available on STN
NEWS 36	May 05	Pharmacokinetic information and systematic chemical names added to PHAR
NEWS 37	May 15	MEDLINE file segment of TOXCENTER reloaded
NEWS 38	May 15	Supporter information for ENCOMPPAT and ENCOMPLIT updated

NEWS EXPRESS April 4 CURRENT WINDOWS VERSION IS V6.01a, CURRENT MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP),

```
                AND CURRENT DISCOVER FILE IS DATED 01 APRIL 2003
 NEWS HOURS     STN Operating Hours Plus Help Desk Availability
 NEWS INTER     General Internet Information
 NEWS LOGIN     Welcome Banner and News Items
 NEWS PHONE     Direct Dial and Telecommunication Network Access to STN
 NEWS WWW       CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that
specific topic.

  All use of STN is subject to the provisions of the STN Customer
  agreement.  Please note that this agreement limits use to scientific
  research.  Use for software development or design or implementation
  of commercial gateways or other similar uses is prohibited and may
  result in loss of user privileges and other penalties.

  * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 07:41:02 ON 16 MAY 2003

=> fil reg
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.84       0.84

FILE 'REGISTRY' ENTERED AT 07:43:15 ON 16 MAY 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2003 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:   14 MAY 2003  HIGHEST RN 515808-31-8
DICTIONARY FILE UPDATES:  14 MAY 2003  HIGHEST RN 515808-31-8

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

Crossover limits have been increased.  See HELP CROSSOVER for details.

Experimental and calculated property data are now available.  See HELP
PROPERTIES for more information.  See STNote 27, Searching Properties
in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=> mercaptopropanyl
MERCAPTOPROPANYL IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

=> e mercaptopropanyl
E1            1     MERCAPTOPROPANOYLPROLINE/BI
E2            1     MERCAPTOPROPANOYLTRYPTOPHAN/BI
E3            0 --> MERCAPTOPROPANYL/BI
E4            4     MERCAPTOPROPARG/BI
E5            4     MERCAPTOPROPARGYL/BI
E6           24     MERCAPTOPROPEN/BI
E7            5     MERCAPTOPROPENO/BI
```

```
E8            4      MERCAPTOPROPENOATE/BI
E9            1      MERCAPTOPROPENOATO/BI
E10           9      MERCAPTOPROPENOIC/BI
E11          15      MERCAPTOPROPENYL/BI
E12           1      MERCAPTOPROPENYLOXY/BI

=> e mercaptopropanyl/cn
E1            1      MERCAPTOPROPANOYLPROLINE/CN
E2            1      MERCAPTOPROPANOYLTRYPTOPHAN/CN
E3            0 --> MERCAPTOPROPANYL/CN
E4            3      MERCAPTOPROPIONIC ACID/CN
E5            1      MERCAPTOPROPIONIC ACID, BUTYL ESTER/CN
E6            1      MERCAPTOPROPIONIC ACID, LAURYL ESTER/CN
E7            1      MERCAPTOPROPIONIC ACID, OCTYL ESTER/CN
E8            1      MERCAPTOPROPIONIC ACID-M 90G-PERFLUOROOCTYLETHYL METHACRYLAT
                     E TELOMER (GRAFT), ESTER WITH GLYCIDYL METHACRYLATE/CN
E9            1      MERCAPTOPROPIONIC ACID-METHYL METHACRYLATE-M 90G-PERFLUOROOC
                     TYLETHYL METHACRYLATE TELOMER (GRAFT), ESTER WITH GLYCIDYL M
                     ETHACRYLATE/CN
E10           1      MERCAPTOPROPIONYLAMINOTRIAZOLE/CN
E11           1      MERCAPTOPROPIONYLGLYCINE/CN
E12           1      MERCAPTOPROPYL GROUP-TERMINATED DI-ME SILOXANES/CN

=> s e4
L1            3 "MERCAPTOPROPIONIC ACID"/CN

=> d scan

L1   3 ANSWERS   REGISTRY  COPYRIGHT 2003 ACS
IN   Propanoic acid, 2-mercapto- (9CI)
MF   C3 H6 O2 S
CI   COM


    SH

Me- CH- CO2H


**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**


HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):2

L1   3 ANSWERS   REGISTRY  COPYRIGHT 2003 ACS
IN   Propanoic acid, 3-mercapto- (9CI)
MF   C3 H6 O2 S
CI   COM


HS- CH2- CH2 CO2H


**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**


L1   3 ANSWERS   REGISTRY  COPYRIGHT 2003 ACS
IN   Propanoic acid, mercapto- (9CI)
MF   C3 H6 O2 S
CI   IDS, COM
```

D1--SH

ALL ANSWERS HAVE BEEN SCANNED

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSSPTA1653MXA

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * * Welcome to STN International * * * * * * * * * *

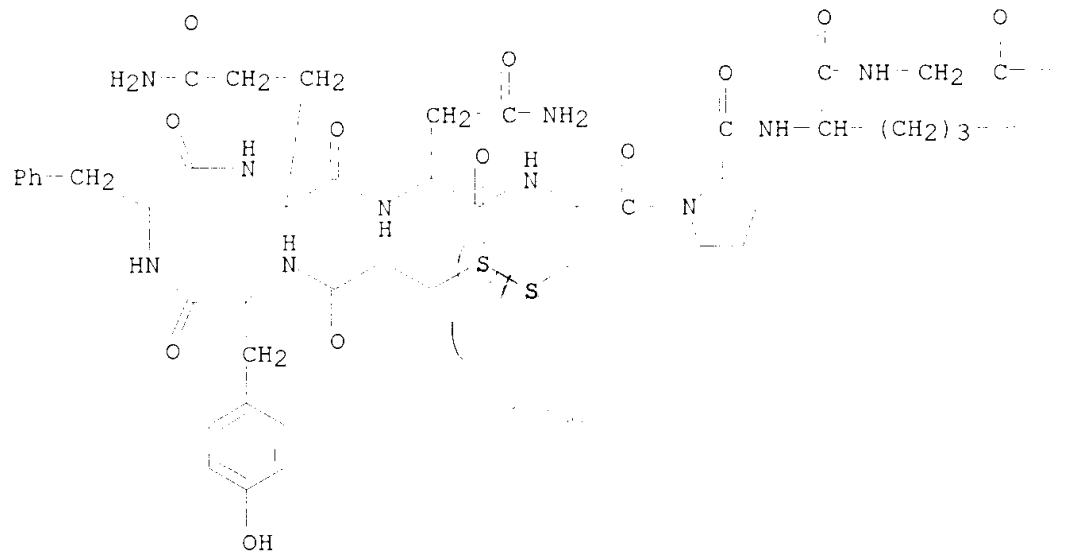
NEWS 1		Web Page URLs for STN Seminar Schedule - N. America
NEWS 2	Apr 08	"Ask CAS" for self-help around the clock
NEWS 3	Jun 03	New e-mail delivery for search results now available
NEWS 4	Aug 08	PHARMAMarketLetter(PHARMAML) - new on STN
NEWS 5	Aug 19	Aquatic Toxicity Information Retrieval (AQUIRE) now available on STN
NEWS 6	Aug 26	Sequence searching in REGISTRY enhanced
NEWS 7	Sep 03	JAPIO has been reloaded and enhanced
NEWS 8	Sep 16	Experimental properties added to the REGISTRY file
NEWS 9	Sep 16	CA Section Thesaurus available in CAPLUS and CA
NEWS 10	Oct 01	CASREACT Enriched with Reactions from 1907 to 1985
NEWS 11	Oct 24	BEILSTEIN adds new search fields
NEWS 12	Oct 24	Nutraceuticals International (NUTRACEUT) now available on STN
NEWS 13	Nov 18	DKILIT has been renamed APOLLIT
NEWS 14	Nov 25	More calculated properties added to REGISTRY
NEWS 15	Dec 04	CSA files on STN
NEWS 16	Dec 17	PCTFULL now covers WP/PCT Applications from 1978 to date
NEWS 17	Dec 17	TOXCENTER enhanced with additional content
NEWS 18	Dec 17	Adis Clinical Trials Insight now available on STN
NEWS 19	Jan 29	Simultaneous left and right truncation added to COMPENDEX, ENERGY, INSPEC
NEWS 20	Feb 13	CANCERLIT is no longer being updated
NEWS 21	Feb 24	METADEX enhancements
NEWS 22	Feb 24	PCTGEN now available on STN
NEWS 23	Feb 24	TEMA now available on STN
NEWS 24	Feb 26	NTIS now allows simultaneous left and right truncation
NEWS 25	Feb 26	PCTFULL now contains images
NEWS 26	Mar 04	SDI PACKAGE for monthly delivery of multifile SDI results
NEWS 27	Mar 20	EVENTLINE will be removed from STN
NEWS 28	Mar 24	PATDPAFULL now available on STN
NEWS 29	Mar 24	Additional information for trade-named substances without structures available in REGISTRY
NEWS 30	Apr 11	Display formats in DGENE enhanced
NEWS 31	Apr 14	MEDLINE Reload
NEWS 32	Apr 17	Polymer searching in REGISTRY enhanced
NEWS 33	Apr 21	Indexing from 1947 to 1956 being added to records in CA/CAPLUS
NEWS 34	Apr 21	New current-awareness alert (SDI) frequency in WPIDS/WPINDEX/WPIX
NEWS 35	Apr 28	RDISCLOSURE now available on STN
NEWS 36	May 05	Pharmacokinetic information and systematic chemical names added to PHAR
NEWS 37	May 15	MEDLINE file segment of TOXCENTER reloaded
NEWS 38	May 15	Supporter information for ENCOMPPAT and ENCOMPLIT updated

NEWS EXPRESS April 4 CURRENT WINDOWS VERSION IS V6.01a, CURRENT MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP),

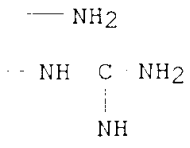
```
                AND CURRENT DISCOVER FILE IS DATED 01 APRIL 2003
 NEWS HOURS     STN Operating Hours Plus Help Desk Availability
 NEWS INTER     General Internet Information
 NEWS LOGIN     Welcome Banner and News Items
 NEWS PHONE     Direct Dial and Telecommunication Network Access to STN
 NEWS WWW       CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that
specific topic.

  All use of STN is subject to the provisions of the STN Customer
  agreement.  Please note that this agreement limits use to scientific
  research.  Use for software development or design or implementation
  of commercial gateways or other similar uses is prohibited and may
  result in loss of user privileges and other penalties.

  * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 16:40:16 ON 15 MAY 2003

=> fil reg
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.21       0.21

FILE 'REGISTRY' ENTERED AT 16:40:21 ON 15 MAY 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2003 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:   14 MAY 2003  HIGHEST RN 515808-31-8
DICTIONARY FILE UPDATES:  14 MAY 2003  HIGHEST RN 515808-31-8

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

Crossover limits have been increased.  See HELP CROSSOVER for details.

Experimental and calculated property data are now available.  See HELP
PROPERTIES for more information.  See STNote 27, Searching Properties
in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=> e desmopressin/cn
E1            1     DESMOPLAKIN I (HUMAN KERATINOCYTE GENE DPI REDUCED)/CN
E2            1     DESMOPLAKIN I (HUMAN REDUCED)/CN
E3            1 --> DESMOPRESSIN/CN
E4            1     DESMOPRESSIN ACETATE/CN
E5            1     DESMOPYRIDINE/CN
E6            1     DESMORAPID/CN
E7            1     DESMORAPID 10/9/CN
E8            1     DESMORAPID 1792/CN
E9            1     DESMORAPID DB/CN
E10           1     DESMORAPID LA/CN
E11           1     DESMORAPID PP/CN
E12           1     DESMORAPID PV/CN
```

```
=> s e3
L1             1 DESMOPRESSIN/CN

=> d scan

L1    1 ANSWERS   REGISTRY  COPYRIGHT 2003 ACS
IN    Vasopressin, 1-(3-mercaptopropanoic acid)-8-D-arginine- (9CI)
SQL   9
MF    C46 H64 N14 O12 S2
CI    COM

**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
```

PAGE 1-A



PAGE 1-B



```
ALL ANSWERS HAVE BEEN SCANNED


=> s e4
L2             1 "DESMOPRESSIN ACETATE"/CN

=> d scan

L2    1 ANSWERS   REGISTRY  COPYRIGHT 2003 ACS
IN    Vasopressin, 1-(3-mercaptopropanoic acid)-8-D-arginine-, monoacetate
      (salt) (9CI)
```

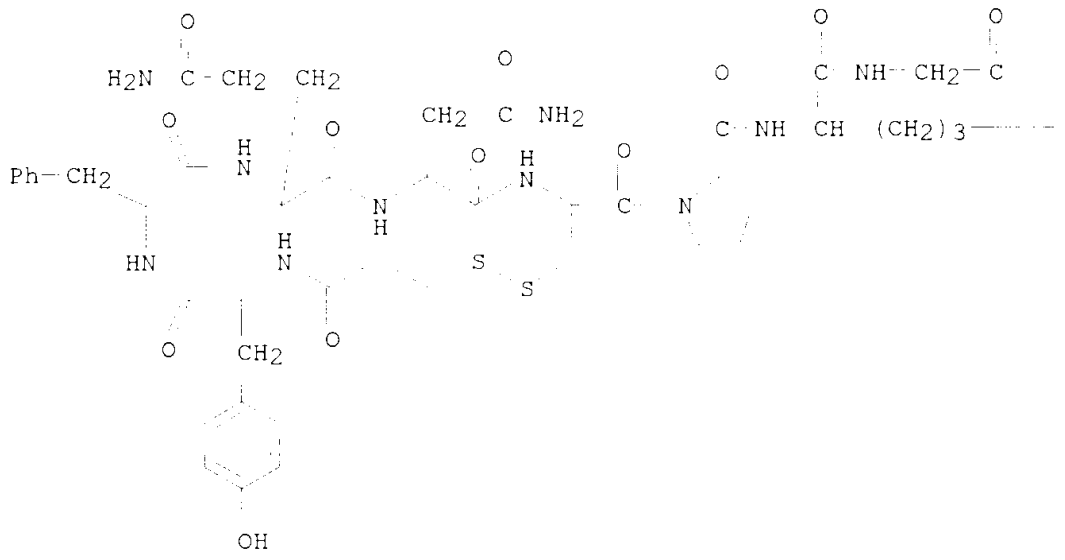
SQL 9
MF C46 H64 N14 O12 S2 . C2 H4 O2

RELATED SEQUENCES AVAILABLE WITH SEQLINK

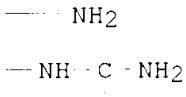
CM 1

RELATED SEQUENCES AVAILABLE WITH SEQLINK

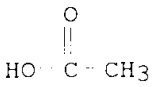
PAGE 1-A



PAGE 1-B



CM 2



ALL ANSWERS HAVE BEEN SCANNED

=> d

L2 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS

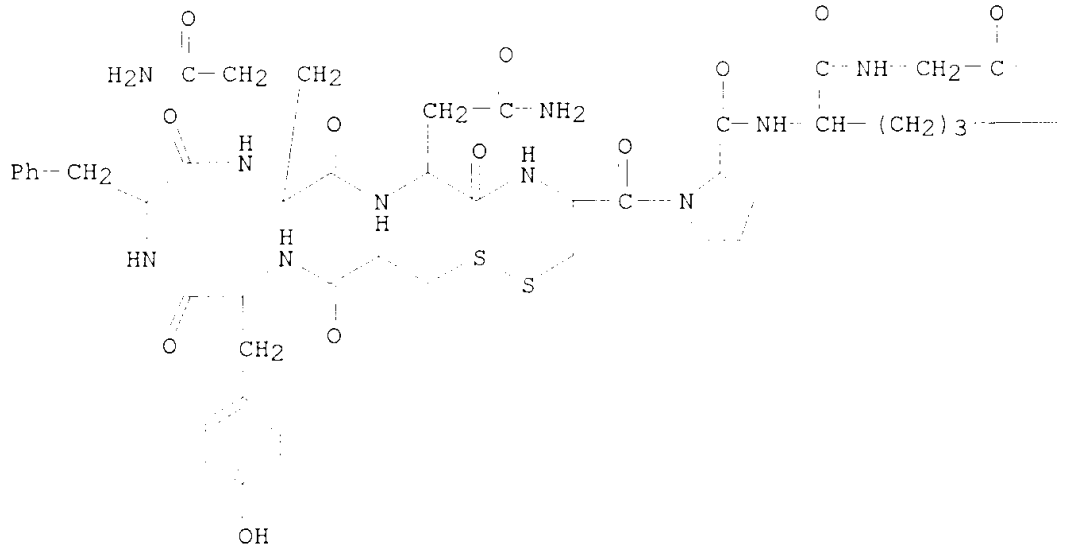
RN 62288-83-9 REGISTRY
CN Vasopressin, 1-(3-mercaptopropanoic acid)-8-D-arginine-, monoacetate (salt) (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 1,2-Dithia-5,8,11,14,17-pentaazacycloeicosane, cyclic peptide deriv.
OTHER NAMES:
CN 1-(3-Mercaptopropionic acid)-8-D-arginine vasopressin monoacetate
CN **Desmopressin acetate**
CN Octostim
CN Stimate
FS PROTEIN SEQUENCE; STEREOSEARCH
MF C46 H64 N14 O12 S2 . C2 H4 O2
LC STN Files: ADISNEWS, AGRICOLA, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CAPLUS, CBNB, CHEMCATS, CIN, DIOGENES, DRUGUPDATES, EMBASE, MRCK*, PHARMASEARCH, PROMT, TOXCENTER, USAN, USPAT2, USPATFULL
(*File contains numerically searchable property data)

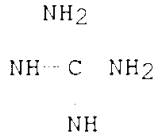
RELATED SEQUENCES AVAILABLE WITH SEQLINK

CM 1

CRN 16679-58-6
CMF C46 H64 N14 O12 S2

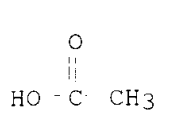
RELATED SEQUENCES AVAILABLE WITH SEQLINK





CM 2

CRN 64-19-7
CMF C2 H4 O2



60 REFERENCES IN FILE CA (1957 TO DATE)
60 REFERENCES IN FILE CAPLUS (1957 TO DATE)

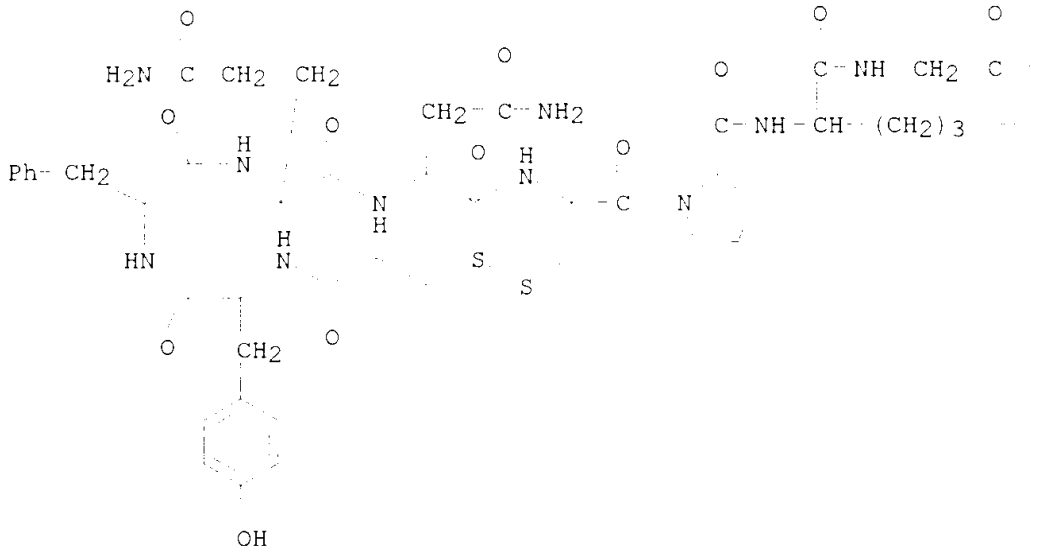
=> s e3
L3 1 DESMOPRESSIN/CN

=> d

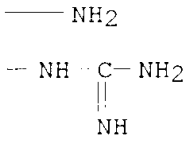
L3 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS
RN 16679-58-6 REGISTRY
CN Vasopressin, 1-(3-mercaptopropanoic acid)-8-D-arginine- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 1,2-Dithia-5,8,11,14,17-pentaazacycloeicosane, cyclic peptide deriv.
CN Vasopressin, 1-(3-mercaptopropionic acid)-8-D-arginine- (8CI)
OTHER NAMES:
CN (1-Deamino-8-D-Arg)-vasopressin
CN 1-(3-Mercaptopropionic acid)-8-D-arginine-vasopressin
CN 1-Deamino-1-[D-Arg8]-vasopressin
CN 1-Deamino-[8-D-arginine]vasopressin
CN 1-Desamino-8-D-arginine-vasopressin
CN 1-Desaminocystine-8-D-arginine-vasopressin
CN 8-D-Arginine deaminovasopressin
CN Adiuretin
CN Adiuretin SD
CN DAV Ritter
CN DDAVP
CN **Desmopressin**
CN Desmospray
CN Minirin
CN Minrin
CN [1-β-Mercaptopropionic acid-8-D-arginine]vasopressin
CN [Deamino1-D-arginine8]vasopressin
CN [Desamino-Cys1,D-Arg8]vasopressin
FS PROTEIN SEQUENCE; STEREOSEARCH
DR 57393-40-5, 55479-19-1, 67259-07-8, 74341-59-6, 70368-29-5, 79050-01-4, 81873-22-5, 90242-66-3, 92008-55-4
MF C46 H64 N14 O12 S2
CI COM
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMLIST, CIN, CSCHEM, DDFU, DIOGENES, DRUGNL, DRUGU, DRUGUPDATES, EMBASE, IPA, MEDLINE, MRCK*, NIOSHTIC, PHAR, PHARMASEARCH, PIRA, PROMT, TOXCENTER, USAN, USPAT2, USPATFULL, VETU
(*File contains numerically searchable property data)
Other Sources: EINECS**, WHO
(**Enter CHEMLIST File for up-to-date regulatory information)

RELATED SEQUENCES AVAILABLE WITH SEQLINK

PAGE 1-A



PAGE 1-B



1143 REFERENCES IN FILE CA (1957 TO DATE)
15 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1152 REFERENCES IN FILE CAPLUS (1957 TO DATE)

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSSPTA1653MXA

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

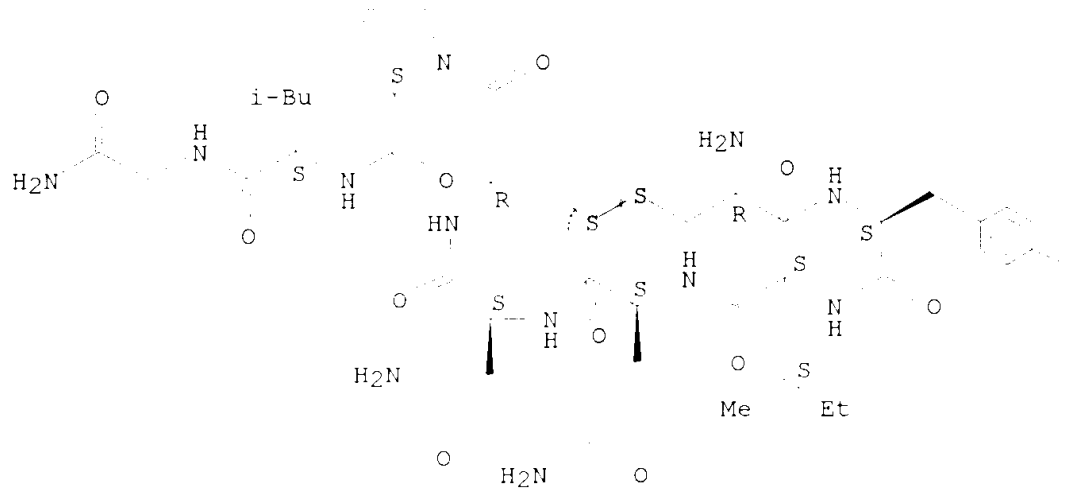
* * * * * * * * * * Welcome to STN International * * * * * * * * * *

NEWS 1		Web Page URLs for STN Seminar Schedule - N. America
NEWS 2	Apr 08	"Ask CAS" for self-help around the clock
NEWS 3	Jun 03	New e-mail delivery for search results now available
NEWS 4	Aug 08	PHARMAMarketLetter(PHARMAML) - new on STN
NEWS 5	Aug 19	Aquatic Toxicity Information Retrieval (AQUIRE) now available on STN
NEWS 6	Aug 26	Sequence searching in REGISTRY enhanced
NEWS 7	Sep 03	JAPIO has been reloaded and enhanced
NEWS 8	Sep 16	Experimental properties added to the REGISTRY file
NEWS 9	Sep 16	CA Section Thesaurus available in CAPLUS and CA
NEWS 10	Oct 01	CASREACT Enriched with Reactions from 1907 to 1985
NEWS 11	Oct 24	BEILSTEIN adds new search fields
NEWS 12	Oct 24	Nutraceuticals International (NUTRACEUT) now available on STN
NEWS 13	Nov 18	DKILIT has been renamed APOLLIT
NEWS 14	Nov 25	More calculated properties added to REGISTRY
NEWS 15	Dec 04	CSA files on STN
NEWS 16	Dec 17	PCTFULL now covers WP/PCT Applications from 1978 to date
NEWS 17	Dec 17	TOXCENTER enhanced with additional content
NEWS 18	Dec 17	Adis Clinical Trials Insight now available on STN
NEWS 19	Jan 29	Simultaneous left and right truncation added to COMPENDEX, ENERGY, INSPEC
NEWS 20	Feb 13	CANCERLIT is no longer being updated
NEWS 21	Feb 24	METADEX enhancements
NEWS 22	Feb 24	PCTGEN now available on STN
NEWS 23	Feb 24	TEMA now available on STN
NEWS 24	Feb 26	NTIS now allows simultaneous left and right truncation
NEWS 25	Feb 26	PCTFULL now contains images
NEWS 26	Mar 04	SDI PACKAGE for monthly delivery of multifile SDI results
NEWS 27	Mar 20	EVENTLINE will be removed from STN
NEWS 28	Mar 24	PATDPAFULL now available on STN
NEWS 29	Mar 24	Additional information for trade-named substances without structures available in REGISTRY
NEWS 30	Apr 11	Display formats in DGENE enhanced
NEWS 31	Apr 14	MEDLINE Reload
NEWS 32	Apr 17	Polymer searching in REGISTRY enhanced
NEWS 33	Apr 21	Indexing from 1947 to 1956 being added to records in CA/CAPLUS
NEWS 34	Apr 21	New current-awareness alert (SDI) frequency in WPIDS/WPINDEX/WPIX
NEWS 35	Apr 28	RDISCLOSURE now available on STN
NEWS 36	May 05	Pharmacokinetic information and systematic chemical names added to PHAR
NEWS 37	May 15	MEDLINE file segment of TOXCENTER reloaded
NEWS 38	May 15	Supporter information for ENCOMPPAT and ENCOMPLIT updated

NEWS EXPRESS April 4 CURRENT WINDOWS VERSION IS V6.01a, CURRENT MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP),

```
                AND CURRENT DISCOVER FILE IS DATED 01 APRIL 2003
 NEWS HOURS     STN Operating Hours Plus Help Desk Availability
 NEWS INTER     General Internet Information
 NEWS LOGIN     Welcome Banner and News Items
 NEWS PHONE     Direct Dial and Telecommunication Network Access to STN
 NEWS WWW       CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that
specific topic.

  All use of STN is subject to the provisions of the STN Customer
  agreement.  Please note that this agreement limits use to scientific
  research.  Use for software development or design or implementation
  of commercial gateways or other similar uses is prohibited and may
  result in loss of user privileges and other penalties.

  * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 07:20:05 ON 16 MAY 2003

=> fil reg
COST IN U.S. DOLLARS                                  SINCE FILE      TOTAL
                                                         ENTRY    SESSION
FULL ESTIMATED COST                                       0.21       0.21

FILE 'REGISTRY' ENTERED AT 07:20:17 ON 16 MAY 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2003 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:   14 MAY 2003  HIGHEST RN 515808-31-8
DICTIONARY FILE UPDATES:  14 MAY 2003  HIGHEST RN 515808-31-8

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

Crossover limits have been increased.  See HELP CROSSOVER for details.

Experimental and calculated property data are now available.  See HELP
PROPERTIES for more information.  See STNote 27, Searching Properties
in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=> e oxytocin/cn
E1            1     OXYTHIOQUINOX/CN
E2            1     OXYTOCIC/CN
E3            1 --> OXYTOCIN/CN
E4            1     OXYTOCIN (REDUCED)/CN
E5            1     OXYTOCIN ACETATE (SALT)/CN
E6            1     OXYTOCIN ANTIPARALLEL DIMER/CN
E7            1     OXYTOCIN C-TERMINAL TRIPEPTIDE/CN
E8            1     OXYTOCIN DIACETATE/CN
E9            1     OXYTOCIN DIMERCURY/CN
E10           1     OXYTOCIN FREE ACID/CN
E11           1     OXYTOCIN MONOMERCURY/CN
E12           1     OXYTOCIN PARALLEL DIMER/CN
```

```
=> e oxitocin/cn
E1            1      OXITEX 70/CN
E2            1      OXITHIOPURINOL/CN
E3            0 --> OXITOCIN/CN
E4            1      OXITOL/CN
E5            1      OXITOL ACETATE/CN
E6            1      OXITON TS/CN
E7            1      OXITRIL 4/CN
E8            1      OXITRIPTAN/CN
E9            1      OXITRIPTYLINE/CN
E10           1      OXITROPIUM/CN
E11           1      OXITROPIUM BROMIDE/CN
E12           1      OXIURAN/CN

=> e oxytocin/cn
E1            1      OXYTHIOQUINOX/CN
E2            1      OXYTOCIC/CN
E3            1 --> OXYTOCIN/CN
E4            1      OXYTOCIN (REDUCED)/CN
E5            1      OXYTOCIN ACETATE (SALT)/CN
E6            1      OXYTOCIN ANTIPARALLEL DIMER/CN
E7            1      OXYTOCIN C-TERMINAL TRIPEPTIDE/CN
E8            1      OXYTOCIN DIACETATE/CN
E9            1      OXYTOCIN DIMERCURY/CN
E10           1      OXYTOCIN FREE ACID/CN
E11           1      OXYTOCIN MONOMERCURY/CN
E12           1      OXYTOCIN PARALLEL DIMER/CN

=> s e3
L1            1 OXYTOCIN/CN

=> d scan

L1    1 ANSWERS   REGISTRY  COPYRIGHT 2003 ACS
IN    Oxytocin (8CI, 9CI)
SQL   9
MF    C43 H66 N12 O12 S2
CI    COM

**RELATED SEQUENCES AVAILABLE WITH SEQLINK**

Absolute stereochemistry.
```

OH

ALL ANSWERS HAVE BEEN SCANNED

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSSPTA1653MXA

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * * Welcome to STN International * * * * * * * * * *

NEWS 1		Web Page URLs for STN Seminar Schedule - N. America
NEWS 2	Apr 08	"Ask CAS" for self-help around the clock
NEWS 3	Jun 03	New e-mail delivery for search results now available
NEWS 4	Aug 08	PHARMAMarketLetter(PHARMAML) - new on STN
NEWS 5	Aug 19	Aquatic Toxicity Information Retrieval (AQUIRE) now available on STN
NEWS 6	Aug 26	Sequence searching in REGISTRY enhanced
NEWS 7	Sep 03	JAPIO has been reloaded and enhanced
NEWS 8	Sep 16	Experimental properties added to the REGISTRY file
NEWS 9	Sep 16	CA Section Thesaurus available in CAPLUS and CA
NEWS 10	Oct 01	CASREACT Enriched with Reactions from 1907 to 1985
NEWS 11	Oct 24	BEILSTEIN adds new search fields
NEWS 12	Oct 24	Nutraceuticals International (NUTRACEUT) now available on STN
NEWS 13	Nov 18	DKILIT has been renamed APOLLIT
NEWS 14	Nov 25	More calculated properties added to REGISTRY
NEWS 15	Dec 04	CSA files on STN
NEWS 16	Dec 17	PCTFULL now covers WP/PCT Applications from 1978 to date
NEWS 17	Dec 17	TOXCENTER enhanced with additional content
NEWS 18	Dec 17	Adis Clinical Trials Insight now available on STN
NEWS 19	Jan 29	Simultaneous left and right truncation added to COMPENDEX, ENERGY, INSPEC
NEWS 20	Feb 13	CANCERLIT is no longer being updated
NEWS 21	Feb 24	METADEX enhancements
NEWS 22	Feb 24	PCTGEN now available on STN
NEWS 23	Feb 24	TEMA now available on STN
NEWS 24	Feb 26	NTIS now allows simultaneous left and right truncation
NEWS 25	Feb 26	PCTFULL now contains images
NEWS 26	Mar 04	SDI PACKAGE for monthly delivery of multifile SDI results
NEWS 27	Mar 20	EVENTLINE will be removed from STN
NEWS 28	Mar 24	PATDPAFULL now available on STN
NEWS 29	Mar 24	Additional information for trade-named substances without structures available in REGISTRY
NEWS 30	Apr 11	Display formats in DGENE enhanced
NEWS 31	Apr 14	MEDLINE Reload
NEWS 32	Apr 17	Polymer searching in REGISTRY enhanced
NEWS 33	Apr 21	Indexing from 1947 to 1956 being added to records in CA/CAPLUS
NEWS 34	Apr 21	New current-awareness alert (SDI) frequency in WPIDS/WPINDEX/WPIX
NEWS 35	Apr 28	RDISCLOSURE now available on STN
NEWS 36	May 05	Pharmacokinetic information and systematic chemical names added to PHAR
NEWS 37	May 15	MEDLINE file segment of TOXCENTER reloaded
NEWS 38	May 15	Supporter information for ENCOMPPAT and ENCOMPLIT updated

NEWS EXPRESS April 4 CURRENT WINDOWS VERSION IS V6.01a, CURRENT MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP),

```
                AND CURRENT DISCOVER FILE IS DATED 01 APRIL 2003
 NEWS HOURS     STN Operating Hours Plus Help Desk Availability
 NEWS INTER     General Internet Information
 NEWS LOGIN     Welcome Banner and News Items
 NEWS PHONE     Direct Dial and Telecommunication Network Access to STN
 NEWS WWW       CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that
specific topic.

  All use of STN is subject to the provisions of the STN Customer
  agreement.  Please note that this agreement limits use to scientific
  research.  Use for software development or design or implementation
  of commercial gateways or other similar uses is prohibited and may
  result in loss of user privileges and other penalties.

  * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 09:20:15 ON 16 MAY 2003

=> fil reg
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.21       0.21

FILE 'REGISTRY' ENTERED AT 09:20:32 ON 16 MAY 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2003 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:   15 MAY 2003  HIGHEST RN 516445-69-5
DICTIONARY FILE UPDATES:  15 MAY 2003  HIGHEST RN 516445-69-5

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

Crossover limits have been increased.  See HELP CROSSOVER for details.

Experimental and calculated property data are now available.  See HELP
PROPERTIES for more information.  See STNote 27, Searching Properties
in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=> fil medline biosis caplus
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     1.20       1.41

FILE 'MEDLINE' ENTERED AT 09:22:10 ON 16 MAY 2003

FILE 'BIOSIS' ENTERED AT 09:22:10 ON 16 MAY 2003
COPYRIGHT (C) 2003 BIOLOGICAL ABSTRACTS INC.(R)

FILE 'CAPLUS' ENTERED AT 09:22:10 ON 16 MAY 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)
```

```
=> e 1-(3-mercaptopropanoic acid)-8-D-argininevasopressin)
E1            1     0ZZX0/BI
E2     13428469     1/BI
E3            0 --> 1-(3-MERCAPTOPROPANOIC ACID)-8-D-ARGININEVASOPRESSIN)/BI
E4      5610906     10/BI
E5            1     10-03-1/BI
E6            3     10-05-4/BI
E7           18     10-10-0/BI
E8          207     10-10-1/BI
E9          150     10-10-2/BI
E10         216     10-10-3/BI
E11         154     10-10-4/BI
E12         270     10-10-5/BI

=> s 1-(3-mercaptopropanoic acid)-8-D-argininevasopressin)
MISSING OPERATOR '1-(3-MERCAPTO'
The search profile that was entered contains terms or
nested terms that are not separated by a logical operator.

=> e 1-(3-mercaptopropanoic acid)-8-D-argininevasopressin)/cn
'CN' IS NOT A VALID EXPAND FIELD CODE FOR FILE 'CAPLUS'
E#   FREQUENCY    AT     TERM
--   ---------    --     ----
E1           0     2     1-(3-MERCAPTO-3-METHYLBUTYRYL)-2-ME-TYR-ARGIPRESSIN/CN
E2           0     2     1-(3-MERCAPTOPROPANOIC ACID)-8-ARG-VASOTOCIN, ACETATE/
                         CN
E3           0       --> 1-(3-MERCAPTOPROPANOIC ACID)-8-D-ARGININEVASOPRESSIN)/
                         CN
E4           0     2     1-(3-MERCAPTOPROPIONIC ACID)-2-(O-ET-TYR)-OXYTOCIN/CN
E5           1     7     1-(3-METHOXY-4-METHYLPHENYL)-2-AMINOPROPANE/CN
E6           0     2     1-(3-METHOXY-4-METHYLPHENYL)-2-AMINOPROPANE, (R)-ISOME
                         R/CN
E7           0     2     1-(3-METHOXY-4-METHYLPHENYL)-2-AMINOPROPANE, (S)-ISOME
                         R/CN
E8           0     2     1-(3-METHOXY-4-TERT-BUTYLDIMETHYLSILYLOXY-5-(2-TERT-BU
                         TYLDIMETHYLSILYLOXY-3-METHOXY-5-HYDROXYMETHYLP/CN
E9           1           1-(3-METHOXY-4-TERT-BUTYLDIMETHYLSILYLOXY-5-(2-TERT-BU
                         TYLDIMETHYLSILYLOXY-3-METHOXY-5-HYDROXYMETHYLPHENYL)PH
                         ENYL)-2-(4-FORMYL-2-METHOXYPHENOXY)-1,3-PROPANEDIOL/CN
E10          2     7     1-(3-METHYL-2-BUTENYL)-4-(2-(3-HYDROXYPHENYL)-1-PHENYL
                         ETHYL)PIPERAZINE/CN
E11          0     2     1-(3-METHYL-2-BUTENYL)-4-(2-(3-HYDROXYPHENYL)-1-PHENYL
                         ETHYL)PIPERAZINE  DIHYDROCHLORIDE/CN
E12          0     2     1-(3-METHYL-3-PHENYLBUTYL)-4-(2-(3-PYRIDYL)THIAZOLIDIN
                         -4-YLCARBONYL)PIPERAZINE FUMARATE/CN
The indicated field code is not available for EXPAND in this
file.  To see a list of valid EXPAND field codes, enter HELP
SFIELDS at an arrow prompt (=>).

=> s mercaptopropanoic and acid and argininevasopressin
L1           2 MERCAPTOPROPANOIC AND ACID AND ARGININEVASOPRESSIN

=> d

L1   ANSWER 1 OF 2  BIOSIS  COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AN   1978:124051  BIOSIS
DN   BA65:11051
TI   1-L-2 HYDROXY-3-MERCAPTO PROPANOIC-ACID ANALOGS OF ARGININE
     VASOPRESSIN 8-D ARGININE VASOPRESSIN AND 4 VALINE 8-D ARGININE
     VASOPRESSIN.
AU   LOWBRIDGE J; MANNING M; HALDAR J; SAWYER W
```

CS DEP. BIOCHEM., MED. COLL. OHIO, TOLEDO, OHIO 43699, USA.
SO J MED CHEM, (1977) 20 (9), 1173-1176.
CODEN: JMCMAR. ISSN: 0022-2623.
FS BA; OLD
LA English

=> d L1

L1 ANSWER 1 OF 2 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AN 1978:124051 BIOSIS
DN BA65:11051
TI 1-L-2 HYDROXY-3-MERCAPTO PROPANOIC-**ACID** ANALOGS OF ARGININE VASOPRESSIN 8-D ARGININE VASOPRESSIN AND 4 VALINE 8-D ARGININE VASOPRESSIN.
AU LOWBRIDGE J; MANNING M; HALDAR J; SAWYER W
CS DEP. BIOCHEM., MED. COLL. OHIO, TOLEDO, OHIO 43699, USA.
SO J MED CHEM, (1977) 20 (9), 1173-1176.
CODEN: JMCMAR. ISSN: 0022-2623.
FS BA; OLD
LA English

=> d 2

L1 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2003 ACS
AN 1977:496395 CAPLUS
DN 87:96395
TI [1-(L-2-Hydroxy-3-**mercaptopropanoic acid**)] analogs of arginine-vasopressin, [8-D-arginine]vasopressin, and [4-valine,8-D-arginine]vasopressin
AU Lowbridge, John; Manning, Maurice; Haldar, Jaya; Sawyer, Wilbur
CS Dep. Biochem., Med. Coll. Ohio, Toledo, OH, USA
SO **Journal of Medicinal Chemistry** (1977), 20(9), 1173-6
CODEN: JMCMAR; ISSN: 0022-2623
DT Journal
LA English

=> fil reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	17.24	18.65

FILE 'REGISTRY' ENTERED AT 09:29:50 ON 16 MAY 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 15 MAY 2003 HIGHEST RN 516445-69-5
DICTIONARY FILE UPDATES: 15 MAY 2003 HIGHEST RN 516445-69-5

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

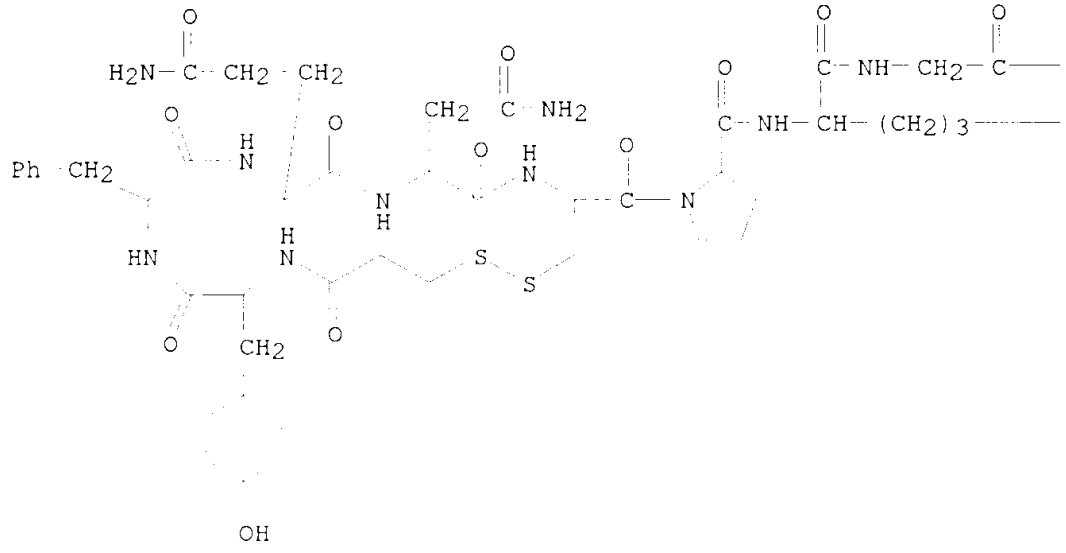
Please note that search-term pricing does apply when conducting SmartSELECT searches.

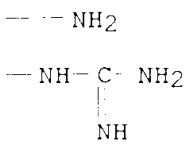
Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

```
=> e 1-(3-mercaptopropanoic acid)-8-D-argininevasopressin)/cn
E1            1      1-(3-LAURAMIDOPROPYL)-1,1-DIMETHYLHYDRAZONIUM CHLORIDE/CN
E2            1      1-(3-MERCAPTOPHENYL)ETHANONE/CN
E3            0 --> 1-(3-MERCAPTOPROPANOIC ACID)-8-D-ARGININEVASOPRESSIN)/CN
E4            1      1-(3-MERCAPTOPROPIONIC ACID)-2-L-ALANINEOXYTOCIN/CN
E5            1      1-(3-MERCAPTOPROPIONIC ACID)-2-L-ISOLEUCINEOXYTOCIN/CN
E6            1      1-(3-MERCAPTOPROPIONIC ACID)-6-(3-SELENYL-L-ALANINE)OXYTOCIN
                     /CN
E7            1      1-(3-MERCAPTOPROPIONIC ACID)-8-D-ARGININE VASOPRESSIN MONOAC
                     ETATE/CN
E8            1      1-(3-MERCAPTOPROPIONIC ACID)-8-D-ARGININE-VASOPRESSIN/CN
E9            1      1-(3-MERCAPTOPROPIONIC ACID)OXYTOCIN/CN
E10           1      1-(3-MERCAPTOPROPYL)-4-METHYLPIPERAZINE/CN
E11           1      1-(3-MERCAPTOPROPYL)SILATRANE/CN
E12           1      1-(3-METHACRYLOXYPROPYL)-3-TRIMETHYLSILYLOXY-1,1,3,3-TETRAME
                     THYLDISILOXANE-METHYL ACRYLATE-METHYL METHACRYLATE-VINYL ACE
                     TATE GRAFT COPOLYMER/CN

=> s e8
L2            1 "1-(3-MERCAPTOPROPIONIC ACID)-8-D-ARGININE-VASOPRESSIN"/CN

=> d scan

L2   1 ANSWERS   REGISTRY  COPYRIGHT 2003 ACS
IN   Vasopressin, 1-(3-mercaptopropanoic acid)-8-D-arginine- (9CI)
SQL  9
MF   C46 H64 N14 O12 S2
CI   COM

**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
```

PAGE 1-A

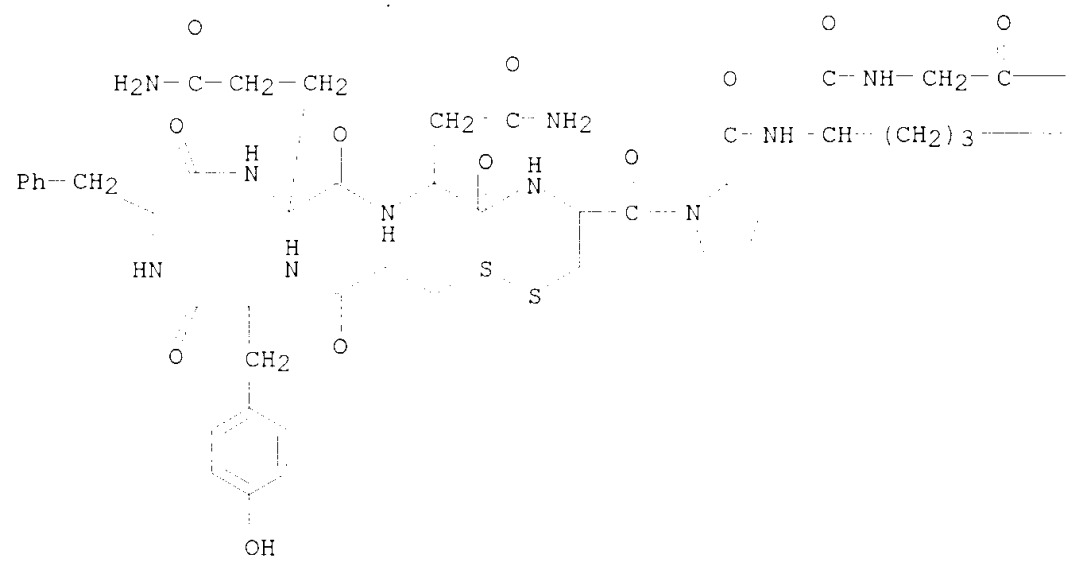




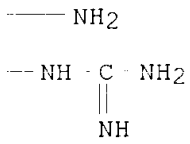
ALL ANSWERS HAVE BEEN SCANNED

```
=> s e7
L3            1 "1-(3-MERCAPTOPROPIONIC ACID)-8-D-ARGININE VASOPRESSIN MONOACETA
                TE"/CN

=> d

L3   ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2003 ACS
RN   62288-83-9  REGISTRY
CN   Vasopressin, 1-(3-mercaptopropanoic acid)-8-D-arginine-, monoacetate
     (salt) (9CI)  (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN   1,2-Dithia-5,8,11,14,17-pentaazacycloeicosane, cyclic peptide deriv.
OTHER NAMES:
CN   1-(3-Mercaptopropionic acid)-8-D-arginine vasopressin monoacetate
CN   Desmopressin acetate
CN   Octostim
CN   Stimate
FS   PROTEIN SEQUENCE; STEREOSEARCH
MF   C46 H64 N14 O12 S2 . C2 H4 O2
LC   STN Files:   ADISNEWS, AGRICOLA, BIOBUSINESS, BIOSIS, BIOTECHNO, CA,
       CAPLUS, CBNB, CHEMCATS, CIN, DIOGENES, DRUGUPDATES, EMBASE, MRCK*,
       PHARMASEARCH, PROMT, TOXCENTER, USAN, USPAT2, USPATFULL
         (*File contains numerically searchable property data)

**RELATED SEQUENCES AVAILABLE WITH SEQLINK**

     CM   1

     CRN  16679-58-6
     CMF  C46 H64 N14 O12 S2

**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
```

PAGE 1-A

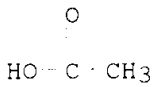


PAGE 1-B



CM 2

CRN 64-19-7
CMF C2 H4 O2



60 REFERENCES IN FILE CA (1957 TO DATE)
60 REFERENCES IN FILE CAPLUS (1957 TO DATE)

```
=> s e7
L4             1 "1-(3-MERCAPTOPROPIONIC ACID)-8-D-ARGININE VASOPRESSIN MONOACETA
                 TE"/CN

=> d

L4   ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2003 ACS
RN   62288-83-9  REGISTRY
CN   Vasopressin, 1-(3-mercaptopropanoic acid)-8-D-arginine-, monoacetate
     (salt) (9CI)  (CA INDEX NAME)
```

OTHER CA INDEX NAMES:
CN 1,2-Dithia-5,8,11,14,17-pentaazacycloeicosane, cyclic peptide deriv.
OTHER NAMES:
CN **1-(3-Mercaptopropionic acid)-8-D-arginine vasopressin monoacetate**
CN Desmopressin acetate
CN Octostim
CN Stimate
FS PROTEIN SEQUENCE; STEREOSEARCH
MF C46 H64 N14 O12 S2 . C2 H4 O2
LC STN Files: ADISNEWS, AGRICOLA, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CAPLUS, CBNB, CHEMCATS, CIN, DIOGENES, DRUGUPDATES, EMBASE, MRCK*, PHARMASEARCH, PROMT, TOXCENTER, USAN, USPAT2, USPATFULL
(*File contains numerically searchable property data)

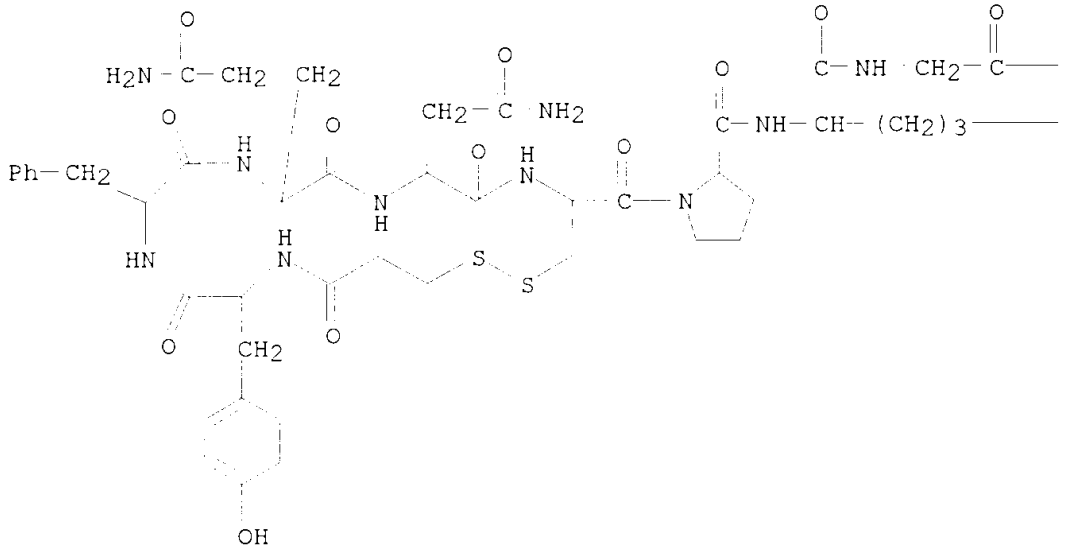
RELATED SEQUENCES AVAILABLE WITH SEQLINK

CM 1

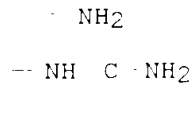
CRN 16679-58-6
CMF C46 H64 N14 O12 S2

RELATED SEQUENCES AVAILABLE WITH SEQLINK

PAGE 1-A

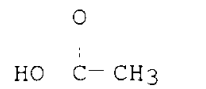


PAGE 1-B



CM 2

CRN 64-19-7
CMF C2 H4 O2



60 REFERENCES IN FILE CA (1957 TO DATE)
60 REFERENCES IN FILE CAPLUS (1957 TO DATE)

```
=> fil medline biosis caplus
COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY    SESSION
FULL ESTIMATED COST                                        18.02      36.67

FILE 'MEDLINE' ENTERED AT 09:32:55 ON 16 MAY 2003

FILE 'BIOSIS' ENTERED AT 09:32:55 ON 16 MAY 2003
COPYRIGHT (C) 2003 BIOLOGICAL ABSTRACTS INC.(R)

FILE 'CAPLUS' ENTERED AT 09:32:55 ON 16 MAY 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

=> s e8
'CN' IS NOT A VALID FIELD CODE
L5            0 "1-(3-MERCAPTOPROPIONIC ACID)-8-D-ARGININE-VASOPRESSIN"/CN

=> s l2
L6         5187 L2

=> dup rem
ENTER L# LIST OR (END):16
PROCESSING IS APPROXIMATELY  25% COMPLETE FOR L6
PROCESSING IS APPROXIMATELY  74% COMPLETE FOR L6
PROCESSING IS APPROXIMATELY  99% COMPLETE FOR L6
PROCESSING COMPLETED FOR L6
L7          3718 DUP REM L6 (1469 DUPLICATES REMOVED)

=>

=> s l7 and water and composition and buffer and (sodium chloride)
L8            2 L7 AND WATER AND COMPOSITION AND BUFFER AND (SODIUM CHLORIDE)

=> d

L8   ANSWER 1 OF 2  CAPLUS  COPYRIGHT 2003 ACS
AN   2001:617848  CAPLUS
DN   135:185480
TI   Stable nasal, oral and sublingual pharmaceutical preparations containing
     desmopressin and malic acid
IN   Scheidl, Helmut; Hantich, Gerhard; Hesse, Ernst; Zapf, Thomas
PA   Gebro Pharma G.m.b.H., Austria
SO   PCT Int. Appl., 26 pp.
     CODEN: PIXXD2
DT   Patent
LA   German
```

```
FAN.CNT 1
     PATENT NO.          KIND  DATE          APPLICATION NO.  DATE
     ----------------    ----  --------      ---------------  --------
PI   WO 2001060394       A1    20010823      WO 2001-AT7      20010110
         W:  AE, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR,
             CU, CZ, CZ, DE, DE, DK, DK, DM, EE, EE, ES, FI, FI, GB, GD, GE,
             GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK,
             LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT,
             RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG,
             US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     AT 409081           B     20020527      AT 2000-233      20000216
     EP 1255557          A1    20021113      EP 2001-901008   20010110
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
     NO 2002003875       A     20021011      NO 2002-3875     20020815
PRAI AT 2000-233         A     20000216
     WO 2001-AT7         W     20010110
RE.CNT  6      THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
               ALL CITATIONS AVAILABLE IN THE RE FORMAT


=> d 2

L8   ANSWER 2 OF 2  CAPLUS  COPYRIGHT 2003 ACS
AN   2001:581444  CAPLUS
DN   135:157680
TI   Pharmaceutical composition containing a small or medium size
     peptide
IN   Woodrow, Wayne
PA   Patents Exploitation Company B.V., Neth.
SO   Eur. Pat. Appl., 12 pp.
     CODEN: EPXXDW
DT   Patent
LA   English
FAN.CNT 1
     PATENT NO.          KIND  DATE          APPLICATION NO.  DATE
     ----------------    ----  --------      ---------------  --------
PI   EP 1121935          A1    20010808      EP 2001-102385   20010202
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO
     JP 2001233787       A2    20010828      JP 2001-25127    20010201
     US 2001027177       A1    20011004      US 2001-776266   20010202
PRAI EP 2000-102429      A     20000204
RE.CNT  6      THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
               ALL CITATIONS AVAILABLE IN THE RE FORMAT


=> d 1-2

L8   ANSWER 1 OF 2  CAPLUS  COPYRIGHT 2003 ACS
AN   2001:617848  CAPLUS
DN   135:185480
TI   Stable nasal, oral and sublingual pharmaceutical preparations containing
     desmopressin and malic acid
IN   Scheidl, Helmut; Hantich, Gerhard; Hesse, Ernst; Zapf, Thomas
PA   Gebro Pharma G.m.b.H., Austria
SO   PCT Int. Appl., 26 pp.
     CODEN: PIXXD2
DT   Patent
```

```
LA   German
FAN.CNT 1
     PATENT NO.          KIND  DATE          APPLICATION NO.  DATE
     ----------------    ----  --------      ---------------  --------
PI   WO 2001060394       A1    20010823      WO 2001-AT7      20010110
         W:  AE, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR,
             CU, CZ, CZ, DE, DE, DK, DK, DM, EE, EE, ES, FI, FI, GB, GD, GE,
             GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK,
             LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT,
             RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG,
             US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     AT 409081           B     20020527      AT 2000-233      20000216
     EP 1255557          A1    20021113      EP 2001-901008   20010110
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
     NO 2002003875       A     20021011      NO 2002-3875     20020815
PRAI AT 2000-233         A     20000216
     WO 2001-AT7         W     20010110
RE.CNT  6     THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8   ANSWER 2 OF 2  CAPLUS  COPYRIGHT 2003 ACS
AN   2001:581444  CAPLUS
DN   135:157680
TI   Pharmaceutical composition containing a small or medium size
     peptide
IN   Woodrow, Wayne
PA   Patents Exploitation Company B.V., Neth.
SO   Eur. Pat. Appl., 12 pp.
     CODEN: EPXXDW
DT   Patent
LA   English
FAN.CNT 1
     PATENT NO.          KIND  DATE          APPLICATION NO.  DATE
     ----------------    ----  --------      ---------------  --------
PI   EP 1121935          A1    20010808      EP 2001-102385   20010202
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO
     JP 2001233787       A2    20010828      JP 2001-25127    20010201
     US 2001027177       A1    20011004      US 2001-776266   20010202
PRAI EP 2000-102429      A     20000204
RE.CNT  6     THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT


=> s l7 and free and preservatives
L9            4 L7 AND FREE AND PRESERVATIVES

=> s l7 and without and preservatives
L10           0 L7 AND WITHOUT AND PRESERVATIVES

=> d l9

L9   ANSWER 1 OF 4     MEDLINE
AN   91262962      MEDLINE
DN   91262962   PubMed ID: 2096493
TI   Chlorobutanol, a preservative of desmopressin, inhibits human platelet
     aggregation and release in vitro.
AU   Chen S L; Yang W C; Huang T P; Wann S A; Teng C M
```

CS Department of Internal Medicine, Veterans General Hospital Taipei, Taiwan, R.O.C.
SO THROMBOSIS AND HAEMOSTASIS, (1990 Nov 30) 64 (3) 473-7.
Journal code: 7608063. ISSN: 0340-6245.
CY GERMANY: Germany, Federal Republic of
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199107
ED Entered STN: 19910802
Last Updated on STN: 20000303
Entered Medline: 19910715

=> d l9 1-4

L9 ANSWER 1 OF 4 MEDLINE
AN 91262962 MEDLINE
DN 91262962 PubMed ID: 2096493
TI Chlorobutanol, a preservative of desmopressin, inhibits human platelet aggregation and release in vitro.
AU Chen S L; Yang W C; Huang T P; Wann S A; Teng C M
CS Department of Internal Medicine, Veterans General Hospital Taipei, Taiwan, R.O.C.
SO THROMBOSIS AND HAEMOSTASIS, (1990 Nov 30) 64 (3) 473-7.
Journal code: 7608063. ISSN: 0340-6245.
CY GERMANY: Germany, Federal Republic of
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199107
ED Entered STN: 19910802
Last Updated on STN: 20000303
Entered Medline: 19910715

L9 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2003 ACS
AN 2001:581444 CAPLUS
DN 135:157680
TI Pharmaceutical composition containing a small or medium size peptide
IN Woodrow, Wayne
PA Patents Exploitation Company B.V., Neth.
SO Eur. Pat. Appl., 12 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1121935	A1	20010808	EP 2001-102385	20010202
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2001233787	A2	20010828	JP 2001-25127	20010201
	US 2001027177	A1	20011004	US 2001-776266	20010202
PRAI	EP 2000-102429	A	20000204		

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2003 ACS
AN 2001:300514 CAPLUS
DN 134:331617
TI Oil-in-water emulsion compositions for polyfunctional active ingredients
IN Chen, Feng-jing; Patel, Mahesh V.

PA Lipocine, Inc., USA
SO PCT Int. Appl., 82 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001028555	A1	20010426	WO 2000-US28835	20001018
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	US 2002107265	A1	20020808	US 1999-420159	19991018
PRAI	US 1999-420159	A	19991018		

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2003 ACS
AN 2001:136991 CAPLUS
DN 134:198075
TI Triglyceride-**free** compositions and methods for enhanced absorption of hydrophilic therapeutic agents
IN Patel, Mahesh V.; Chen, Feng-Jing
PA Lipocine, Inc., USA
SO PCT Int. Appl., 113 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 7

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001012155	A1	20010222	WO 2000-US18807	20000710
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	US 6309663	B1	20011030	US 1999-375636	19990817
	EP 1210063	A1	20020605	EP 2000-947184	20000710
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
	JP 2003506476	T2	20030218	JP 2001-516502	20000710
	US 2001024658	A1	20010927	US 2000-751968	20001229
	US 6458383	B2	20021001		
PRAI	US 1999-375636	A	19990817		
	WO 2000-US18807	W	20000710		

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

5482931 89
5763405 84
5922680 84
6306832 77
6429302 68
6416503 67
6416960 67
6350760 61
6440699 61
5763398 60
6461821 60
6299900 59
6436703 58
6458383 58
6268360 58
6419961 57
6368629 57
6309663 56
6391877 54
6432994 54
6458805 54
6465495 54
6444419 54
6465629 54
6406900 54
6471997 54
6410714 54
4761469 53
5554378 52
6303620 52
6399103 52
6294534 52
6350764 52
6472399 52
6410041 52
6268159 52
6296847 52

6407120 52
6420118 52

09776266_CLS

Most Frequently Occurring Classifications of Patents Returned From A Search of 09776266 on March 26, 2003

Original Classifications

4	514/15
2	435/6
2	435/69.1
2	435/7.23
2	514/220
2	514/278
2	536/23.5

Cross-Reference Classifications

6	536/23.1
5	435/320.1
5	530/350
4	530/300
3	424/451
3	424/499
3	424/502
3	514/12
3	514/2
3	514/975
3	530/315
3	530/327
3	536/23.5
3	546/200
2	424/426
2	424/435
2	424/455
2	424/456
2	424/463
2	424/464
2	424/489
2	435/252.3
2	435/325
2	435/471
2	435/7.92
2	514/15
2	514/16
2	514/315
2	514/317
2	514/323
2	514/602
2	514/937
2	514/938
2	514/939

2 514/940
2 514/941
2 514/942
2 514/943
2 530/328
2 546/17
2 546/18
2 546/201
2 546/290
2 548/247
2 564/86

Combined Classifications
7 536/23.1
6 514/15
5 435/320.1
5 530/350
5 536/23.5
4 424/451
4 530/300
3 424/489
3 424/499
3 424/502
3 435/325
3 435/6
3 435/69.1
3 514/12
3 514/2
3 514/278
3 514/323
3 514/975
3 530/315
3 530/327
3 546/200
2 424/426
2 424/434
2 424/435
2 424/450
2 424/455
2 424/456
2 424/463
2 424/464
2 424/501
2 435/252.3
2 435/4
2 435/471
2 435/7.1
2 435/7.23

2 435/7.92
2 514/16
2 514/220
2 514/314
2 514/315
2 514/317
2 514/318
2 514/349
2 514/603
2 514/937
2 514/938
2 514/939
2 514/940
2 514/941
2 514/942
2 514/943
2 530/324
2 530/328
2 546/17
2 546/18
2 546/201
2 546/290
2 548/245
2 548/247
2 564/86

09776266_CLSTITLES

Titles of Most Frequently Occurring Classifications of Patents Returne
:

From A Search of 09776266 on March 26, 2003

7 536/23.1 (1 OR, 6 XR)
Class 536 : ORGANIC COMPOUNDS -- PART OF THE CLASS 532-570 SERIES
536/1.11 .Carbohydrates or derivatives
536/18.7 ..Nitrogen containing
536/22.1 ...N-glycosides, polymers thereof, metal derivatives (e.g., nucleic acids, oligonucleotides, etc.)
536/23.1 ....DNA or RNA fragments or modified forms thereof (e.g., genes, etc.)

6 514/15 (4 OR, 2 XR)
Class 514 : DRUG, BIO-AFFECTING AND BODY TREATING COMPOSITIONS
514/1 DESIGNATED ORGANIC ACTIVE INGREDIENT CONTAININ
g
(DOAI)
514/2 .Peptide containing (e.g., protein, peptones, fibrinogen, etc.) DOAI
514/15 ..9 to 11 peptide repeating units in known peptide chain

5 435/320.1 (0 OR, 5 XR)
Class 435 : CHEMISTRY: MOLECULAR BIOLOGY AND MICROBIOLOGY
435/320.1 VECTOR, PER SE (E.G., PLASMID, HYBRID PLASMID, COSMID, VIRAL VECTOR, BACTERIOPHAGE VECTOR, ETC.)
BACTERIOPHAGE VECTOR, ETC.)

5 530/350 (0 OR, 5 XR)
Class 530 : CHEMISTRY: NATURAL RESINS OR DERIVATIVES; PEPTIDES OR PROTEINS; LIGNINS OR REACTION PRODUCTS
THEREOF
530/350 PROTEINS, I.E., MORE THAN 100 AMINO ACID RESIDUES

5 536/23.5 (2 OR, 3 XR)
Class 536 : ORGANIC COMPOUNDS -- PART OF THE CLASS 532-570 SERIES
536/1.11 .Carbohydrates or derivatives

536/18.7 ..Nitrogen containing
536/22.1 ...N-glycosides, polymers thereof, metal derivatives (e.g., nucleic acids, oligonucleotides, etc.)

536/23.1 ....DNA or RNA fragments or modified forms thereof (e.g., genes, etc.)
536/23.5 .....Encodes an animal polypeptide

4 424/451 (1 OR, 3 XR)
Class 424 : DRUG, BIO-AFFECTING AND BODY TREATING COMPOSITIONS
424/400 PREPARATIONS CHARACTERIZED BY SPECIAL PHYSICAL FORM
424/451 .Capsules (e.g., of gelatin, of chocolate, etc.)

4 530/300 (0 OR, 4 XR)
Class 530 : CHEMISTRY: NATURAL RESINS OR DERIVATIVES; PEPTIDES OR PROTEINS; LIGNINS OR REACTION PRODUCTS THEREOF
530/300 PEPTIDES OF 3 TO 100 AMINO ACID RESIDUES

3 424/489 (1 OR, 2 XR)
Class 424 : DRUG, BIO-AFFECTING AND BODY TREATING COMPOSITIONS
424/400 PREPARATIONS CHARACTERIZED BY SPECIAL PHYSICAL FORM
424/489 .Particulate form (e.g., powders, granules, beads, microcapsules, and pellets)

3 424/499 (0 OR, 3 XR)
Class 424 : DRUG, BIO-AFFECTING AND BODY TREATING COMPOSITIONS
424/400 PREPARATIONS CHARACTERIZED BY SPECIAL PHYSICAL FORM
424/489 .Particulate form (e.g., powders, granules, beads, microcapsules, and pellets)
424/499 ..Contains proteins or derivative or polysaccharides or derivative

3 424/502 (0 OR, 3 XR)
Class 424 : DRUG, BIO-AFFECTING AND BODY TREATING COMPOSITIONS
424/400 PREPARATIONS CHARACTERIZED BY SPECIAL PHYSICAL FORM
424/489 .Particulate form (e.g., powders, granules,

beads, microcapsules, and pellets)
424/502 ..Contains waxes, higher fatty acids, higher fatty alcohols

? 435/325 (1 OR, 2 XR)
Class 435 : CHEMISTRY: MOLECULAR BIOLOGY AND MICROBIOLOGY

435/325 ANIMAL CELL, PER SE (E.G., CELL LINES, ETC.); COMPOSITION THEREOF; PROCESS OF PROPAGATING, MAINTAINING OR PRESERVING AN ANIMAL CELL OR COMPOSITION THEREOF; PROCESS OF ISOLATING OR SEPARATING AN ANIMAL CELL OR COMPOSITION THEREOF; PROCESS OF PREPARING A COMPOSITION CONTAINING AN ANIMAL CELL; CULTURE MEDIA THEREFORE

3 435/6 (2 OR, 1 XR)
Class 435 : CHEMISTRY: MOLECULAR BIOLOGY AND MICROBIOLOGY

435/4 MEASURING OR TESTING PROCESS INVOLVING ENZYMES OR MICRO-ORGANISMS; COMPOSITION OR TEST STRIP THEREFORE; PROCESSES OF FORMING SUCH COMPOSITION OR TEST STRIP
435/6 .Involving nucleic acid

3 435/69.1 (2 OR, 1 XR)
Class 435 : CHEMISTRY: MOLECULAR BIOLOGY AND MICROBIOLOGY

435/41 MICRO-ORGANISM, TISSUE CELL CULTURE OR ENZYME USING PROCESS TO SYNTHESIZE A DESIRED CHEMICAL COMPOUND OR COMPOSITION
435/69.1 .Recombinant DNA technique included in method of making a protein or polypeptide

3 514/12 (3 OR, 3 XR)
Class 514 : DRUG, BIO-AFFECTING AND BODY TREATING COMPOSITIONS
514/1 DESIGNATED ORGANIC ACTIVE INGREDIENT CONTAINING (DOAI)
514/2 .Peptide containing (e.g., protein, peptones, fibrinogen, etc.) DOAI
514/12 ..25 or more peptide repeating units in known peptide chain structure

3 514/2 (0 OR, 3 XR)
Class 514 : DRUG, BIO-AFFECTING AND BODY TREATING COMPOSITIONS
514/1 DESIGNATED ORGANIC ACTIVE INGREDIENT CONTAINING (DOAI)
514/2 .Peptide containing (e.g., protein, peptones, fibrinogen, etc.) DOAI

3 514/278 (2 OR, 1 XR)
Class 514 : DRUG, BIO-AFFECTING AND BODY TREATING COMPOSITIONS
514/1 DESIGNATED ORGANIC ACTIVE INGREDIENT CONTAINING (DOAI)
514/183 .Heterocyclic carbon compounds containing a hetero ring having chalcogen (i.e., O,S,Se or Te) or nitrogen as the only ring hetero atoms DOAI
514/277 ..Hetero ring is six-membered consisting of one nitrogen and five carbon atoms
514/278 ...Spiro ring system

3 514/323 (1 OR, 2 XR)
Class 514 : DRUG, BIO-AFFECTING AND BODY TREATING COMPOSITIONS
514/1 DESIGNATED ORGANIC ACTIVE INGREDIENT CONTAINING (DOAI)
514/183 .Heterocyclic carbon compounds containing a hetero ring having chalcogen (i.e., O,S,Se or Te) or nitrogen as the only ring hetero atoms DOAI
514/277 ..Hetero ring is six-membered consisting of one nitrogen and five carbon atoms
514/315 ...Piperidines
514/317 ....Additional ring containing
514/319 .....The additional ring is one of the cyclos in a polycyclo ring system
514/320 ......Hetero ring in the polycyclo ring system
514/323 ....Ring nitrogen in the polycyclo ring system

3 514/975 (0 OR, 3 XR)
Class 514 : DRUG, BIO-AFFECTING AND BODY TREATING COMPOSITIONS
514/9[illegible] CHARACTERIZED BY THE DESIGNATED SURFACTANT USE
D

3 530/315 (0 OR, 3 XR)
Class 530 : CHEMISTRY: NATURAL RESINS OR DERIVATIVES; PEPTIDES OR PROTEINS; LIGNINS OR REACTION PRODUCTS
THEREOF
530/300 PEPTIDES OF 3 TO 100 AMINO ACID RESIDUES
530/315 .Oxytocin; vasopressin; related peptides

3 530/327 (0 OR, 3 XR)
Class 530 : CHEMISTRY: NATURAL RESINS OR DERIVATIVES; PEPTIDES OR PROTEINS; LIGNINS OR REACTION PRODUCTS
THEREOF
530/300 PEPTIDES OF 3 TO 100 AMINO ACID RESIDUES
530/327 .11 to 14 amino acid residues in defined sequence

3 546/200 (0 OR, 3 XR)
Class 546 : ORGANIC COMPOUNDS -- PART OF THE CLASS 532-570 SERIES
546/1 ..Hetero ring is six-membered consisting of one nitrogen and five carbons
546/184 ...Piperidines
546/192 ....Additional ring containing
546/195 .....The additional ring is one of the cyclos in a polycyclo ring system
546/196 ......Hetero ring in the polycyclo ring system
546/200 ....Ring nitrogen in the polycyclo ring system

2 424/426 (0 OR, 2 XR)
Class 424 : DRUG, BIO-AFFECTING AND BODY TREATING COMPOSITIONS
424/400 PREPARATIONS CHARACTERIZED BY SPECIAL PHYSICAL FORM
424/422 .Implant or insert
424/423 ..Surgical implant or material
424/426 ...Errodable, resorbable, or dissolving

2 424/434 (1 OR, 1 XR)
Class 424 : DRUG, BIO-AFFECTING AND BODY TREATING COMPOSITIONS
424/400 PREPARATIONS CHARACTERIZED BY SPECIAL PHYSICAL FORM
424/422 .Implant or insert
424/434 ..Mucosal (e.g., nasal, etc.)

2 424/435 (0 OR, 2 XR)
Class 424 : DRUG, BIO-AFFECTING AND BODY TREATING COMPOSITIONS
424/400 PREPARATIONS CHARACTERIZED BY SPECIAL PHYSICAL FORM
424/422 .Implant or insert
424/434 ..Mucosal (e.g., nasal, etc.)
424/435 ...Mouth

2 424/450 (1 OR, 1 XR)
Class 424 : DRUG, BIO-AFFECTING AND BODY TREATING COMPOSITIONS
424/400 PREPARATIONS CHARACTERIZED BY SPECIAL PHYSICAL FORM
424/450 .Liposomes

2 424/455 (0 OR, 2 XR)
Class 424 : DRUG, BIO-AFFECTING AND BODY TREATING COMPOSITIONS
424/400 PREPARATIONS CHARACTERIZED BY SPECIAL PHYSICAL FORM
424/451 .Capsules (e.g., of gelatin, of chocolate, etc.)
424/455 ..Containing emulsions, dispersions, or solutions

2 424/456 (0 OR, 2 XR)
Class 424 : DRUG, BIO-AFFECTING AND BODY TREATING COMPOSITIONS
424/400 PREPARATIONS CHARACTERIZED BY SPECIAL PHYSICAL FORM
424/451 .Capsules (e.g., of gelatin, of chocolate, etc.)
424/456 ..Gelatin

2 424/463 (0 OR, 2 XR)
Class 424 : DRUG, BIO-AFFECTING AND BODY TREATING COMPOSITIONS
424/400 PREPARATIONS CHARACTERIZED BY SPECIAL PHYSICAL

FORM

424/451 .Capsules (e.g., of gelatin, of chocolate, etc.

424/463 ..Coated capsules

2 424/464 (0 OR, 2 XR)

Class 424 : DRUG, BIO-AFFECTING AND BODY TREATING COMPOSITIONS

424/400 PREPARATIONS CHARACTERIZED BY SPECIAL PHYSICAL FORM

424/464 .Tablets, lozenges, or pills

2 424/501 (1 OR, 1 XR)

Class 424 : DRUG, BIO-AFFECTING AND BODY TREATING COMPOSITIONS

424/400 PREPARATIONS CHARACTERIZED BY SPECIAL PHYSICAL FORM

424/489 .Particulate form (e.g., powders, granules, beads, microcapsules, and pellets)

424/501 ..Contains solid synthetic resin

2 435/252.3 (0 OR, 2 XR)

Class 435 : CHEMISTRY: MOLECULAR BIOLOGY AND MICROBIOLOGY

435/243 MICRO-ORGANISM, PER SE (E.G., PROTOZOA, ETC.); COMPOSITIONS THEREOF; PROCES OF PROPAGATI NG, MAINTAINING OR PRESERVING MICRO-ORGANISMS OR COMPOSITION S THEREOF; PROCESS OF PREPARING OR ISOLATING A COMPOSITION C ONTAINING A MICRO-ORGANISM; CULTURE MEDIA THEREFOR

435/252.1 .Bacteria or actinomycetales; media therefor

435/252.3 ..Transformants (e.g., recombinant DNA or vector or foreign or exogenous gene contain ing, fused bacteria, etc.)

2 435/4 (1 OR, 1 XR)

Class 435 : CHEMISTRY: MOLECULAR BIOLOGY AND MICROBIOLOGY

435/4 MEASURING OR TESTING PROCESS INVOLVING ENZYMES OR MICRO-ORGANISMS; COMPOSITION OR TEST STR IP THEREFORE; PROCESSES OF FORMING SUCH COMPOSITION OR TE ST STRIP

2 435/471 (0 OR, 2 XR)

Class 435 : CHEMISTRY: MOLECULAR BIOLOGY AND MICROBIOLOGY

435/455 .Introduction of a polynucleotide molecule into or rearrangement of nucleic acid within an animal cell

435/471 .Introduction of a polynucleotide molecule into or rearrangement of nucleic acid within a microorganism (e.g., bacteria, protozoa, bacteriophage, etc.)

2 435/7.1 (1 OR, 1 XR)

Class 435 : CHEMISTRY: MOLECULAR BIOLOGY AND MICROBIOLOGY

435/4 MEASURING OR TESTING PROCESS INVOLVING ENZYMES OR MICRO-ORGANISMS; COMPOSITION OR TEST STRIP THEREFORE; PROCESSES OF FORMING SUCH COMPOSITION OR TEST STRIP

435/7.1 .Involving antigen-antibody binding, specific binding protein assay or specific ligand-receptor binding assay

2 435/7.23 (2 OR, 0 XR)

Class 435 : CHEMISTRY: MOLECULAR BIOLOGY AND MICROBIOLOGY

435/4 MEASURING OR TESTING PROCESS INVOLVING ENZYMES OR MICRO-ORGANISMS; COMPOSITION OR TEST STRIP THEREFORE; PROCESSES OF FORMING SUCH COMPOSITION OR TEST STRIP

435/7.1 .Involving antigen-antibody binding, specific binding protein assay or specific ligand-receptor binding assay

435/7.2 ..Involving a micro-organism or cell membrane bound antigen or cell membrane bound receptor or cell membrane bound antibody or microbial lysate

435/7.21 ...Animal cell

435/7.23 ....Tumor cell or cancer cell

2 435/7.92 (2 OR, 2 XR)

Class 435 : CHEMISTRY: MOLECULAR BIOLOGY AND MICROBIOLOGY

435/4 MEASURING OR TESTING PROCESS INVOLVING ENZYMES OR MICRO-ORGANISMS; COMPOSITION OR TEST STRIP THEREFORE; PROCESSES OF FORMING SUCH COMPOSITION OR TEST STRIP

435/7.1 .Involving antigen-antibody binding, specific binding protein assay or specific ligand-receptor binding assay

435/7.9 ..Assay in which an enzyme present is a label

435/7.92 ...Heterogeneous or solid phase assay system (e.g., ELISA, etc.)

2 514/16 (0 OR, 2 XR)
Class 514 : DRUG, BIO-AFFECTING AND BODY TREATING COMPOSITIONS

514/1 DESIGNATED ORGANIC ACTIVE INGREDIENT CONTAINING (DOAI)

514/2 .Peptide containing (e.g., protein, peptones, fibrinogen, etc.) DOAI

514/16 ..7 or 8 peptide repeating units in known peptide chain

2 514/220 (2 OR, 0 XR)
Class 514 : DRUG, BIO-AFFECTING AND BODY TREATING COMPOSITIONS

514/1 DESIGNATED ORGANIC ACTIVE INGREDIENT CONTAINING (DOAI)

514/183 .Heterocyclic carbon compounds containing a hetero ring having chalcogen (i.e., O,S, Se or Te) or nitrogen as the only ring hetero atoms DOAI

514/218 ..Hetero ring is seven-membered consisting of two nitrogens and five carbon atoms

514/219 ...Polycyclo ring system having the seven-membered hetero ring as one of the cyclos

514/220 ....Tricyclo ring system having the seven-membered hetero ring as one of the cyclos

2 514/314 (1 OR, 1 XR)
Class 514 : DRUG, BIO-AFFECTING AND BODY TREATING

09776266_CLSTITLES

COMPOSITIONS

514/1 DESIGNATED ORGANIC ACTIVE INGREDIENT CONTAININ
G

(DOAI)

514/183 .Heterocyclic carbon compounds containing a hetero ring having chalcogen (i.e., O, S, Se or Te) or nitrogen as the only ring hetero atoms DOAI

514/277 ..Hetero ring is six-membered consisting of on
e

nitrogen and five carbon atoms

514/279 ...Polycyclo ring system having the six-membered hetero ring as one of the c
yclos

514/299 ....Bicyclo ring system having the six-membere
d

hetero ring as one of the cyclos

514/311 .....Quinolines (including hydrogenated)

514/314 ......Additional hetero ring attached directly or indirectly to the quinoline ring system by nonionic

bonding

Z 514/315 (0 OR, 2 XR)

Class 514 : DRUG, BIO-AFFECTING AND BODY TREATING COMPOSITIONS

514/1 DESIGNATED ORGANIC ACTIVE INGREDIENT CONTAININ
G

(DOAI)

514/183 .Heterocyclic carbon compounds containing a hetero ring having chalcogen (i.e., O,S,S
e or Te) or

nitrogen as the only ring hetero atoms DO
AI

514/277 ..Hetero ring is six-membered consisting of on
e

nitrogen and five carbon atoms

514/315 ...Piperidines

Z 514/317 (0 OR, 2 XR)

Class 514 : DRUG, BIO-AFFECTING AND BODY TREATING COMPOSITIONS

514/1 DESIGNATED ORGANIC ACTIVE INGREDIENT CONTAININ
G

(DOAI)

514/183 .Heterocyclic carbon compounds containing a hetero ring having chalcogen (i.e., O,S,

Se or Te, or
nitrogen as the only ring hetero atoms D
OAI
514/277 ..Hetero ring is six-membered consisting of on
e
nitrogen and five carbon atoms
514/315 ...Piperidines
514/317 ....Additional ring containing

2 514/318 (1 OR, 1 XR)
Class 514 : DRUG, BIO-AFFECTING AND BODY TREATING
COMPOSITIONS
514/1 DESIGNATED ORGANIC ACTIVE INGREDIENT CONTAININ
G
(DOAI)
514/183 .Heterocyclic carbon compounds containing a
hetero ring having chalcogen (i.e., O,S
,Se or Te) or
nitrogen as the only ring hetero atoms
DOAI
514/277 ..Hetero ring is six-membered consisting of on
e
nitrogen and five carbon atoms
514/315 ...Piperidines
514/317 ....Additional ring containing
514/318 .....The additional ring is a six-membered
hetero ring consisting of one nitrogen and
five carbon
atoms

2 514/349 (1 OR, 1 XR)
Class 514 : DRUG, BIO-AFFECTING AND BODY TREATING
COMPOSITIONS
514/1 DESIGNATED ORGANIC ACTIVE INGREDIENT CONTAININ
G
(DOAI)
514/183 .Heterocyclic carbon compounds containing a
hetero ring having chalcogen (i.e., O,S,
Se or Te) or
nitrogen as the only ring hetero atoms D
OAI
514/277 ..Hetero ring is six-membered consisting of on
e
nitrogen and five carbon atoms
514/345 ...Chalcogen bonded directly to ring carbon of
the six-membered hetero ring
514/349 ....Nitrogen attached directly to the
six-membered hetero ring by nonionic bondin

g

2 514/603 (0 OR, 2 XR)
Class 514 : DRUG, BIO-AFFECTING AND BODY TREATING COMPOSITIONS
514/266.24 .....The additional hetero ring consists of carbon and chalcogen as the only ring members
514/[illegible] .Nitrogen containing other than solely as a nitrogen in an inorganic ion of an addition salt, a nitro or a nitroso DOAI
514/601 ..Sulfonamides (i.e., Q-(O=)S(=O)-N, wherein Q is a substituent and wherein any substituent attached to the nitrogen will be referred to as E)
514/602 ...Q contains benzene ring
514/603 ....Nitrogen in Q

2 514/937 (0 OR, 2 XR)
Class 514 : DRUG, BIO-AFFECTING AND BODY TREATING COMPOSITIONS
514/937 DISPERSION OR EMULSION

2 514/938 (0 OR, 2 XR)
Class 514 : DRUG, BIO-AFFECTING AND BODY TREATING COMPOSITIONS
514/937 DISPERSION OR EMULSION
514/938 .Oil-water type

2 514/939 (0 OR, 2 XR)
Class 514 : DRUG, BIO-AFFECTING AND BODY TREATING COMPOSITIONS
514/937 DISPERSION OR EMULSION
514/938 .Oil-water type
514/939 ..Mineral oil-water type

2 514/941 (0 OR, 2 XR)
Class 514 : DRUG, BIO-AFFECTING AND BODY TREATING COMPOSITIONS
514/937 DISPERSION OR EMULSION
514/938 .Oil-water type
514/939 ..Mineral oil-water type
514/940 ...Quick break type

2 514/941 (0 OR, 2 XR)
Class 514 : DRUG, BIO-AFFECTING AND BODY TREATING COMPOSITIONS

514/937 DISPERSION OR EMULSION
514/938 .Oil-water type
514/939 ..Mineral oil-water type
514/941 ...Polyoxyalkylated compound containing

2 514/942 (0 OR, 2 XR)
Class 514 : DRUG, BIO-AFFECTING AND BODY TREATING COMPOSITIONS
514/937 DISPERSION OR EMULSION
514/938 .Oil-water type
514/939 ..Mineral oil-water type
514/942 ...Organic sulfonate, sulfate or sulfite containing

2 514/943 (0 OR, 2 XR)
Class 514 : DRUG, BIO-AFFECTING AND BODY TREATING COMPOSITIONS
514/937 DISPERSION OR EMULSION
514/938 .Oil-water type
514/939 ..Mineral oil-water type
514/943 ...Higher fatty acid or derivative containing

2 530/324 (1 OR, 1 XR)
Class 530 : CHEMISTRY: NATURAL RESINS OR DERIVATIVES; PEPTIDES OR PROTEINS; LIGNINS OR REACTION PRODUCTS THEREOF
530/300 PEPTIDES OF 3 TO 100 AMINO ACID RESIDUES
530/324 .25 or more amino acid residues in defined sequence

2 530/328 (0 OR, 2 XR)
Class 530 : CHEMISTRY: NATURAL RESINS OR DERIVATIVES; PEPTIDES OR PROTEINS; LIGNINS OR REACTION PRODUCTS THEREOF
530/300 PEPTIDES OF 3 TO 100 AMINO ACID RESIDUES
530/328 .8 to 10 amino acid residues in defined sequence

2 546/17 (0 OR, 2 XR)
Class 546 : ORGANIC COMPOUNDS -- PART OF THE CLASS 532-570 SERIES
546/1 ..Hetero ring is six-membered consisting of one nitrogen and five carbons
546/15 ...Spiro

546/16 ....The spiro includes the six-membered hetero ring

546/17 .....Polycyclo ring system having one of the two rings which form the spiro as one of the cyclos

546/1 (0 OR, 5 XR)
Class 546 : ORGANIC COMPOUNDS -- PART OF THE CLASS 532-570 SERIES

546/1 ..Hetero ring is six-membered consisting of one nitrogen and five carbons

546/15 ...Spiro

546/16 ....The spiro includes the six-membered hetero ring

546/17 .....Polycyclo ring system having one of the two rings which form the spiro as one of the cyclos

546/18 ......Polycyclo ring system having the six-membered hetero ring as one of the cyclos

2 546/201 (0 OR, 2 XR)
Class 546 : ORGANIC COMPOUNDS -- PART OF THE CLASS 532-570 SERIES

546/1 ..Hetero ring is six-membered consisting of one nitrogen and five carbons

546/184 ...Piperidines

546/192 ....Additional ring containing

546/195 .....The additional ring is one of the cyclos in a polycyclo ring system

546/196 ......Hetero ring in the polycyclo ring system

546/200 ....Ring nitrogen in the polycyclo ring system

546/201 ....Bicyclo ring system which is indole (including hydrogenated)

2 546/290 (0 OR, 2 XR)
Class 546 : ORGANIC COMPOUNDS -- PART OF THE CLASS 532-570 SERIES

546/1 ..Hetero ring is six-membered consisting of one nitrogen and five carbons

546/290 ...Chalcogen bonded directly to ring carbon of the six-membered hetero ring

09776266 CLSTITLES

2 548/245 (1 OR, 1 XR)
Class 548 : ORGANIC COMPOUNDS -- PART OF THE CLASS
532-570 SERIES
548/100 ..Hetero ring is five-membered having two or more ring hetero atoms of which at least one is nitrogen
(e.g., selenazoles, etc.)
548/240 ...1,2-oxazoles (including hydrogenated)
548/245 ....Nitrogen bonded directly to ring carbon of the oxazole ring

2 548/247 (0 OR, 2 XR)
Class 548 : ORGANIC COMPOUNDS -- PART OF THE CLASS
532-570 SERIES
548/100 ..Hetero ring is five-membered having two or more ring hetero atoms of which at least one is nitrogen
(e.g., selenazoles, etc.)
548/240 ...1,2-oxazoles (including hydrogenated)
548/247 ....Plural double bonds between ring members of the oxazole ring

2 564/86 (0 OR, 2 XR)
Class 564 : ORGANIC COMPOUNDS -- PART OF THE CLASS
532-570 SERIES
564/1 .AMINO NITROGEN CONTAINING (E.G., UREA, SULFONAMIDES, NITROSAMINES, OXYAMINES, ETC., AND SALTS THEREOF)
564/80 ..Sulfonamides (i.e., Q-(O=)S(=O)-HNH, wherein Q is a substituent and wherein any substituent replacing one or both hydrogens shown will be referred to as E)
564/84 ...Substituent Q contains benzene ring
564/86 ....Nitrogen in substituent Q

ab 2
able 1
about 1
absolute 1
abstract 1
[illegible] 1
[illegible] 1
according 1
accordingly 1
acetate 1
acid 7
acting 1
active 6
activity 5
actuator 1
addition 1
additive 1
additives 2
administered 1
administering 1
administration 2
adsorbed 2
adsorption 16
advantages 1
after 1
agent 3
aim 1
air 1
all 1
allergic 1
allowing 1
already 1
also 2
always 1
amine 3
among 2
amount 3
amounts 1
an 12
and 1
[illegible] 1
analogous 1
analogues 4
and 36
antidiuretic 1
antimicrobial 1
antioxidants 1
anyway 1

apparent 2
application 5
applications 1
aqueous 2
ar 1
are 12
arginin 2
argininevasopressin 2
arising 1
art 3
arts 1
as 22
asma 1
aspiration 1
ass 1
associated 1
astic 2
at 7
atoms 4
attesting 1
attwood 1
auto 1
avoiding 1
bacteria 1
banning 1
be 4
because 2
been 3
before 3
being 1
benza 1
benzalkonium 2
besides 1
between 1
biologic 1
blocking 1
bonds 1
both 1
bottles 1
bridges 1
buffer 5
but 1
by 12
ca 1
calcitonin 1
capable 1
case 1
caused 1

characterized 1
chloride 5
chlorobutanol 1
ciliar 1
[illegible] 1
citrate 2
citric 5
claim 1
claims 2
clinical 1
cm 1
complete 1
composition 21
compositions 7
comprised 1
concerned 2
considerable 1
consisting 1
contain 2
container 6
containing 14
contains 4
contamination 1
context 1
control 1
controlling 2
cross 1
cunningham 1
cyc 1
cyclic 5
cyclus 3
deamino 2
degradation 5
demonstrated 1
derivatives 5
desamino 1
described 1
description 2
desmopressin 9
device 4
diabetes 1
dihydrate 4
discloses 1
disinfectant 2
disodium 3
disorders 1
do 1
does 2

drawback 2
drug 4
drugs 3
due 1
during 3
easily 1
easy 1
edition 1
effective 1
embodiment 2
embraces 2
encountered 1
endowed 1
entailing 1
enuresis 1
environment 2
envisaged 1
ep 2
epitomising 1
equipped 1
erich 1
especially 2
esters 1
et 1
even 2
examp 2
example 7
examples 2
excipients 1
exhibiting 1
extended 1
fact 1
far 2
february 1
ferring 2
field 1
filed 1
filled 1
filter 1
filtered 1
filters 1
fl 1
florence 1
for 10
foregoing 1
formulations 1
found 1
free 7

from 22
further 2
furthermore 1
general 1
giving 2
glass 2
gmbh 1
goals 1
group 1
half 1
has 4
have 2
hereby 1
hfe 1
hofmann 1
hours 1
human 2
hydrate 1
ihydrate 1
im 1
in 23
incorporated 1
ing 1
inhibiting 1
inhibitor 1
inhibitors 2
insipidus 1
insulin 2
intended 1
intravenous 1
invention 17
investigated 1
investigations 1
io 3
irreversible 1
irritative 1
is 23
it 3
its 1
jo 1
kept 1
kind 3
known 2
konium 1
laboratory 1
least 4
life 1
like 2

likewise 1
long 1
lose 1
loss 2
losses 2
[illegible] 1
maintained 1
maintaining 1
many 2
marketable 1
martindale 1
material 3
materials 1
may 3
mechanism 1
medium 14
mercaptopropanoic 2
mercaptopropanyl 1
methyl 1
mg 10
ml 2
monocarba 1
monohydrate 1
more 6
most 5
motility 1
mucosae 1
multidose 1
name 3
nasal 3
nitrogen 1
nocturnal 1
not 4
now 2
number 1
nvent 1
occur 1
of 98
often 3
oftheart 1
ogues 1
on 4
[illegible] 3
ongoing 1
only 1
onto 3
or 23
osmolarity 4

osmotic 1
over 1
overcoming 1
ow 1
oxftocin 1
oxidinab 1
oxitocin 2
particu 1
particular 4
particularly 1
patent 3
peptide 14
peptides 11
petty 1
pfeiffer 1
ph 2
pharmaceutica 1
pharmaceutical 11
pharmaceutically 3
pharmacy 1
phosphate 3
physicochemical 1
physiologic 1
physiological 1
plasma 1
plastic 1
point 1
polymeric 2
polypropylene 1
polystyrene 1
positive 1
possibility 1
possible 1
potency 4
powerful 2
pp 2
pre 1
preferab 2
preferably 11
preferred 7
prejudice 1
preparation 1
prepared 2
presence 1
present 14
preservative 6
preservatives 10
preserve 1

press 1
pressure 1
prevent 1
preventing 2
prevention 2
principle 6
principles 1
prior 3
priority 1
problem 3
problems 1
process 1
products 1
protection 1
protein 1
provided 2
pump 1
purified 1
quaternary 3
quickly 1
radical 1
rbetocin 1
reactions 1
ready 1
rebound 1
recently 2
reference 3
related 1
relates 2
remarkable 1
[illegible] 1
reported 2
represents 1
required 2
reviewed 1
room 2
salts 2
scale 1
seeming 1
selected 2
sets 2
shall 1
shelf 2
short 1
show 2
shows 1
size 14
[illegible] 1

small 14
sodium 2
solution 4
solutions 5
source 1
specific 1
spray 3
springer 1
stab 1
stable 2
state 1
sterile 2
sterilely 1
substances 1
such 16
suffering 1
suggested 1
suitable 1
suitably 1
sulfur 6
summary 1
suppression 1
surface 1
surprising 1
temperature 2
terlipressin 1
term 3
termed 1
test 1
[illegible] 1
thanks 1
that 11
the 126
their 1
therapeutic 1
therapeutically 1
therapy 1
therefore 1
thereof 4
these 3
they 2
third 1
this 5
those 5
though 2
through 1
[illegible] 1
time 1

titre 2
to 17
toxicological 1
treatment 1
trials 1
triglycin 1
trisod 1
trisodium 1
tubes 1
tubing 1
two 2
tyrosine 1
under 1
unlike 1
urinary 1
us 1
use 5
used 1
useful 1
utterly 1
value 1
values 2
vasopressin 6
verlag 1
very 1
vial 1
view 1
walls 1
walls 5
water 2
weh 1
well 1
when 1
which 4
will 1
with 4
within 4
wo 3
ysin 1